OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833
(916) 274-5721
www.dir.ca.gov/oshsb

MISSION STATEMENT

The mission of the Occupational Safety and Health Standards Board is to promote, adopt, and maintain reasonable and enforceable standards that will ensure a safe and healthy workplace for California workers.

AGENDA

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD MEETING

November 19, 2026
10:00 a.m.

In-Person:

Hilton Garden Inn Monterey
Big Sur Ballroom
1000 Aguajito Road
Monterey, CA 93940

Videoconference:

1. Go to https://tkoworks.zoom.us/j/87501250331
2. Enter Webinar ID: 875 0125 0331
3. Join the meeting through the Zoom application OR through your web browser
4. Videoconference will be opened to the public at 9:50 a.m.

Teleconference:

1. Dial 1 (669) 444-9171
2. Enter Webinar ID: 875 0125 0331 and follow the prompts
3. Teleconference will be opened to the public at 9:50 a.m.

Live video stream and audio stream (English and Spanish):

1. Go to https://videobookcase.com/california/oshsb/
2. Video stream and audio stream will launch as the meeting starts at 10:00 a.m.

Public Comment Queue:
If attending the Occupational Safety and Health Standards Board (Board) meeting in person, you will be added to the public comment queue upon completing a comment card on the day of the meeting using your real name or pseudonym.

If attending the meeting remotely and you wish to comment on agenda items, you may submit a request to be added to the public comment queue either in advance of or during the meeting through one of the following methods:

ONLINE: Provide your information through the online comment queue portal at https://videobookcase.org/oshsb/public-comment-queue-form/

PHONE: Call **(510) 868-2730** to access the automated comment queue voicemail and provide†: 1) your name as you would like it listed; 2) your affiliation or organization; and 3) the topic you would like to comment on.

† Information requested is voluntary and not required to address the Board.

I. CALL TO ORDER AND INTRODUCTIONS

A. Spanish translation instructions

II. REMARKS FROM THE CHAIR

III. PUBLIC HEARING

A. Explanation of Procedures

B. Proposed safety orders (revisions, additions, deletions)

1. TITLE 8: **GENERAL INDUSTRY SAFETY ORDERS**
   Sections 5006.1 and 5006.2
   Recertification of Crane Operators

   a. Briefing on the Proposal

b. Board Member Comments and Questions

c. Public Comment

IV. BUSINESS MEETING

Note: The purpose of the Business Meeting is for the Board to conduct its monthly business. All matters on this agenda are subject to discussion and action as determined to be appropriate by the Board Chair. Items may be taken out of order.

There will be a public comment period before board action on each item, except for the Consent Calendar. Public comment will be limited to two minutes per speaker or four minutes for speakers requiring concurrent English translation.

A. PROPOSED PETITION DECISION FOR ADOPTION

1. Fire Emergency Preparedness for Aerial-Device Work
   Petition 615

The Petitioner requests to the Board to "review an under-discussed hazard affecting utility workers, electrical contractors, line-clearance workers, tree-care personnel, and other employees who perform work from aerial devices and elevated work platforms: fire occurring at or near the worker's elevated position."

The Petitioner asserts:

• Aerial-device fire emergencies present a distinct operational problem that may not be fully addressed by existing general aerial device requirements, portable fire extinguisher rules, or emergency action planning requirements

• A review of OSHA accident summaries and public reports identifies multiple fire-related aerial platform incident patterns

• Requiring specific personal protective equipment (PPE) may be necessary when engineering and administrative controls have failed

- Briefing by Board staff on proposed petition decision for adoption
- Public comment on proposed petition decision for adoption

- Board discussion

2. Type II Helmets
   Petition 616

The Petitioner requests the Board to consider amending title 8 to require all employees who are using active fall protection systems to wear helmets meeting the ANSI Z89.1-2014 Type II requirements

The petitioner identifies their experience as a Fall Protection Qualified Person Instructor, serving as an expert witness, and a member of ANSI Z359. The petitioner cites several incidents which workers sustained serious injuries or fatalities where a "hardhat" that is rated for side and top impacts, secured with a harness to hold the hardhat on their head may have mitigated the severity of the incidents.

The petitioner states that:

- Falls from height continue to be the leading cause of death in construction and cites industry experience, incident examples, and statistical data to support their request that the Board consider requiring ASNI Z89.1-2014 Type II helmets for all at-height workers.

- The petitioner contends that improved head protection has the potential to "significantly reduce fatalities and life-changing injuries" at a "relatively low cost" and that these changes could be put into the walking-working surfaces regulations, "where head protection [is] perhaps needed the most."

    - Briefing by Board staff on proposed petition decision for adoption

    - Public comment on proposed petition decision for adoption

    - Board discussion

B. PROPOSED VARIANCE DECISIONS FOR ADOPTION

- Consent Calendar
- Vote on consent calendar

C. REPORTS

- Executive Officer's Report
    - Process Update
    - Regulations Update
    - Staffing Update
- Legislative Update
- Cal/OSHA Report
    - Regulations Update
- Public comment on reports

D. BOARD DISCUSSION: PLACEMENT OF AGENDA ITEM "PUBLIC COMMENT ON NON-AGENDA ITEMS OR TO PROPOSE NEW OR REVISED STANDARDS"

- Briefing and Board Discussion
- Public comment on Board Discussion

E. BOARD DISCUSSION PUBLIC COMMENT ON NON-AGENDA ITEMS OR TO PROPOSE NEW OR REVISED STANDARDS

This portion of the meeting is open to any interested person proposing new or revised standards to the Board or commenting on occupational safety and health issues (Labor Code section 142.2) not on the agenda. The Board is prohibited from acting on or responding to items that are not noticed on the agenda but may refer items to staff for future consideration.

Public comment will be limited to two minutes per speaker or four minutes for speakers requiring concurrent English translation.

The Board encourages comments on occupational safety and health matters not included on the monthly agenda. If you have a comment and cannot attend during the non-agenda comment period, OSHSB staff will do their best to read emailed comments into the record. Please send your non-agenda comment to oshsb_nacomments@dir.ca.gov by 5:00 PM the day prior to the meeting. Your comment should be clear, concise and 500 words or less.

Any individual or group wanting to make a presentation during the Public Meeting should visit https://www.dir.ca.gov/oshsb/presentations-for-oshsb.html for further information.

F. COMMENTS BY BOARD MEMBERS

Any Board member may identify a topic of interest during the Board meeting. However, the Board may not substantially discuss or act on any matter raised during the meeting that is not included on this agenda, except to decide to place the matter on the agenda of a future meeting. (GC sections 11125 & 11125.7(a).).

G. CLOSED SESSION

Pending Decisions (GC section 11126(c)(3))

- Permanent Variance No. 23-V-580 (Dragados)

Pending Litigation (GC section 11126(e)(1))

- Western States Petroleum Association (WSPA) v. California Occupational Safety and Health Standards Board (OSHSB), et al. United States District Court (Eastern District of California) Case No. 2:19-CV-01270

- WSPA v. OSHSB, et al., County of Sacramento, CA Superior Court Case No. 34-2019-00260210

Personnel: to consider the appointment, employment, evaluation or performance, or dismissal of a public employee or to hear complaints or charges brought against that employee pursuant to Government Code section 11126, subdivisions (a) and (b).

H. RETURN TO OPEN SESSION

- Report from closed session

I. ADJOURNMENT OF THE MEETING

Next Meeting: December 17, 2026
California State University, Stanislaus
Mary Stuart Rogers Building, Room MSR 130
One University Circle
Turlock, CA 95382
10:00 a.m.

ADDITIONAL INFORMATION

Public Hearing

In the event of a Public Hearing, members of the public may provide comments regarding standards that have been noticed to the public for a 45-day comment period. An individual wishing to comment must complete a speaker comment card. Efforts will be made to accommodate everyone who signs up to speak.

Each individual who submits a comment card will get up to two minutes to speak. The Board Chair may extend the speaking time allotted when practical.

Disability Accommodation Notice

Under Government Code section 11123(a), all meetings of a state body are open and public, and all persons are permitted to attend any meeting of a state body, except as otherwise provided in the Bagley-Keene Open Meeting Act.

If disability-related modifications or accommodations are required to participate in the meeting, please contact Sarah Waklee with the Diversity and Inclusion Office at DIO@DIR.CA.GOV. To ensure the availability of your requested accommodation, please submit your request at least five (5) days in advance.

Please contact the California Relay Service by dialing 711 or (800) 735-2929 (TTY) or (800) 855-3000 (TTY-Spanish).

Translation

Requests for translation services should be made no later than five (5) days before the meeting. Request may be made to by email to oshsb@dir.ca.gov.

For additional information regarding this agenda, please contact Millicent Robinette at 916-274-5721, oshsb@dir.ca.gov, or at our mailing address:

Occupational Safety and Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

The agenda is also available on our website at www.dir.ca.gov/oshsb and https://www.dir.ca.gov/oshsb/mtgsch.html.

CONSENT CALENDAR—PROPOSED VARIANCE DECISIONS
NOVEMBER 19, 2026, MONTHLY BUSINESS MEETING
OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED DECISIONS FOR BOARD CONSIDERATION, HEARD ON OCTOBER 21, 2026

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
1. 17-V-392M2	Metro Owners Association	ELEVATOR	GRANT
2. 18-V-077M2	Metro Owners Association	ELEVATOR	GRANT
3. 18-V-135M2	Metro Owners Association	ELEVATOR	GRANT
4. 18-V-136M2	Metro Owners Association	ELEVATOR	GRANT
5. 18-V-508M1	Westlake Realty Group, Inc.	ELEVATOR	GRANT
6. 23-V-092M1	Open DTHLA RE Holdings, LLC	ELEVATOR	GRANT
7. 26-V-004M1	SyNoor, LLC	ELEVATOR	GRANT
8. 26-V-162	UCSF Health	ELEVATOR	GRANT
9. 26-V-175M1	Coombs Street LLC	ELEVATOR	GRANT
10. 26-V-233M1	292 Barham LLC	ELEVATOR	GRANT
11. 26-V-351M1	Logos St Rest Holdings 1, LLC	ELEVATOR	GRANT
12. 26-V-483	Bay Area Rapid Transit District (BART)	ELEVATOR	GRANT
13. 26-V-489	Luis O. Ramallo	ELEVATOR	GRANT
14. 26-V-490	Santa Monica-Malibu Unified School District	ELEVATOR	GRANT
15. 26-V-491	Primestor Norwalk Entertainment, LLC	ELEVATOR	GRANT
16. 26-V-492	15 South Hope Associates, L.P.	ELEVATOR	GRANT
17. 26-V-493	CFT NV Developments LLC	ELEVATOR	GRANT
18. 26-V-494	BH Luxury Residences, LLC	ELEVATOR	GRANT
19. 26-V-495	BH Luxury Residences, LLC	ELEVATOR	GRANT

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
20. 26-V-496	The Board of Trustees of the Leland Stanford Junior University	ELEVATOR	GRANT
21. 26-V-497	GMMR Stone, LLC	ELEVATOR	GRANT
22. 26-V-498	City of Ontario	ELEVATOR	GRANT
23. 26-V-499	Wilton Rancheria Gaming Authority	ELEVATOR	GRANT
24. 26-V-500	Red Tail Multifamily Land Development LLC	ELEVATOR	GRANT
25. 26-V-501	Chino Valley Unified School District	ELEVATOR	GRANT
26. 26-V-502	UCSF Health	ELEVATOR	GRANT
27. 26-V-503	UCSF Health	ELEVATOR	GRANT
28. 26-V-504	Sophia Foundation	ELEVATOR	GRANT
29. 26-V-506	Rainbow Investment Co.	ELEVATOR	GRANT
30. 26-V-507	El Camino Hospital	ELEVATOR	GRANT
31. 26-V-508	Harmony at Cote Vera, LLC	ELEVATOR	GRANT
32. 26-V-509	Harmony at Cote Vera, LLC	ELEVATOR	GRANT
33. 26-V-510	Navajo Road Housing Associates, L.P.	ELEVATOR	GRANT
34. 26-V-511	Harmony at Cote Vera, LLC	ELEVATOR	GRANT
35. 26-V-512	Harmony at Cote Vera, LLC	ELEVATOR	GRANT
36. 26-V-513	LA Sanitation	ELEVATOR	GRANT
37. 26-V-517	SPI 80 Grand Broadway, LLC	ELEVATOR	GRANT
38. 26-V-519	MDNI Group LLC	ELEVATOR	GRANT
39. 26-V-520	525 Water Street LP	ELEVATOR	GRANT
40. 26-V-521	The Glen at Heather Farm Walnut Creek CCRC LLC	ELEVATOR	GRANT
41. 26-V-522	SHAC 11 ECR Apartments LLC	ELEVATOR	GRANT
42. 26-V-523	San Mateo County Community College District	ELEVATOR	GRANT

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
43. 26-V-524	Balboa Park Properties, LLC	ELEVATOR	GRANT
44. 26-V-525	Balboa Park Properties, LLC	ELEVATOR	GRANT
45. 26-V-526	Balboa Park Properties, LLC	ELEVATOR	GRANT
46. 26-V-527	College of the Sequoias	ELEVATOR	GRANT
47. 26-V-528	Long Beach Community College District	ELEVATOR	GRANT
48. 26-V-529	Rise 30th St LP	ELEVATOR	GRANT
49. 26-V-530	DICK's Sporting Goods, Inc	ELEVATOR	GRANT
50. 26-V-531	Dry Creek Commons L.P.	ELEVATOR	GRANT
51. 26-V-532	Camino de Salud LP	ELEVATOR	GRANT
52. 26-V-533	BC Oregon LLC	ELEVATOR	GRANT
53. 26-V-534	Tule River Tribe Gaming Authority	ELEVATOR	GRANT
54. 26-V-535	Midtown Flats, LP	ELEVATOR	GRANT
55. 26-V-536	TH II Los Angeles 2617 Crenshaw LP	ELEVATOR	GRANT
56. 26-V-537	Lone Oak – Los Angeles, L.L.C.	ELEVATOR	GRANT
57. 26-V-538	Eastbank QOZB LLC	ELEVATOR	GRANT
58. 26-V-539	Pacific BMW	ELEVATOR	GRANT
59. 26-V-540	6171 Mission Gorge Owner, LP	ELEVATOR	GRANT
60. 26-V-541	4417 Rutherford Owner, LLC	ELEVATOR	GRANT
61. 26-V-542	US 1902 Wilshire Owner, LLC	ELEVATOR	GRANT

PROPOSED DECISIONS FOR BOARD CONSIDERATION, HEARD ON OCTOBER 28, 2026

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
62. 26-V-316	Sugar Bowl Corporation	Section 3162	GRANT

Occupational Safety and Health Standards Board

Public Hearing

Recertification of Crane Operators

Prepared by the Department of Industrial Relations
Available on the DIR web page: Standards Board (OSHSB) 2026 Meeting Schedule

TITLE 8

GENERAL INDUSTRY SAFETY ORDERS

SECTIONS 5006.1 AND 5006.2

RECERTIFICATION OF CRANE OPERATORS

HYPERLINKS TO RULEMAKING DOCUMENTS:

NOTICE/INFORMATIVE DIGEST

PROPOSED REGULATORY TEXT

INITIAL STATEMENT OF REASONS

BASIS FOR RULEMAKING

FEDERAL: §	STATE: General Industry Safety Orders	RATIONALE
1926.1427(d) Certification by an accredited crane operator testing organization.	§5006.1. Mobile Crane and Tower Crane -- Operator Qualifications and Certification (Applicable to Cranes in General Industry Only). (c) Accredited Certifying Entity. The crane operator testing organization providing the certification shall be accredited by an approved nationally recognized accrediting agency. The accreditation shall be based on ~~that~~ the accrediting agency's determination that industry-recognized criteria for written testing materials, practical examinations, test administration, grading, facilities/equipment, and personnel have been met. For purposes of this section, crane types shall correspond with the standards referenced in section 4884. § 5006.2. Operator Training, Certification, and Evaluation for Cranes and Derricks in Construction. (d) Option (1): Certification by an accredited crane operator certifying entity. **** (2) For a certification to satisfy the requirements of this option, the crane operator testing organization providing the certification shall be accredited by an approved nationally recognized accrediting agency. The accreditation shall be based on ~~that~~ the accrediting agency's determination that industry-recognized criteria for written testing materials, practical examinations, test administration, grading, facilities/equipment, and personnel have been met.	Federal OSHA does not have certification requirements for General Industry.

FEDERAL: §	STATE: General Industry Safety Orders	RATIONALE
1926.1427(d)(1) For a certification to satisfy the requirements of this section, the crane operator testing organization providing the certification must: 1926.1427(d)(1)(i) Be accredited by a nationally recognized accrediting agency based on that agency's determination that industry-recognized criteria for written testing materials, practical examinations, test administration, grading, facilities/equipment, and personnel have been met.	§5006.1. Mobile Crane and Tower Crane -- Operator Qualifications and Certification (Applicable to Cranes in General Industry Only). (c) Accredited Certifying Entity. The crane operator testing organization providing the certification shall be accredited by an approved nationally recognized accrediting agency. The accreditation shall be based on ~~that~~ the accrediting agency's determination that industry-recognized criteria for written testing materials, practical examinations, test administration, grading, facilities/equipment, and personnel have been met. For purposes of this section, crane types shall correspond with the standards referenced in section 4884. §5006.2. Operator Training, Certification, and Evaluation for Cranes and Derricks in Construction. (c) Operator certification and licensing. The employer shall ensure that each operator is certified or licensed to operate the equipment in accordance with subsection (d) Option 1, or (e) Option 2 as follows. **** (d) Option (1): Certification by an accredited crane operator certifying entity. (1) Certification. Certificates shall be valid for a maximum of five (5) years. An Accredited Certifying Entity shall issue the certificate of competency to operators who successfully	This proposed amendment is commensurate with the federal standard.

FEDERAL: §	STATE: General Industry Safety Orders	RATIONALE
	demonstrate the qualifications set forth in subsection (g). **** (2) For a certification to satisfy the requirements of this option, the crane operator testing organization providing the certification shall be accredited by an approved nationally recognized accrediting agency. The accreditation shall be based on ~~that~~ the accrediting agency's determination that industry-recognized criteria for written testing materials, practical examinations, test administration, grading, facilities/equipment, and personnel have been met.	This proposed amendment is commensurate with the federal standard.
1926.1427(d)(1)(ii) Administer written and practical tests that: 1926.1427(d)(1)(ii)(A) Assess the operator applicant regarding, at a minimum, the knowledge and skills listed in paragraphs (j)(1) and (2) of this section. **** 1926.1427(d)(4) A certification issued under this paragraph is valid for 5 years.	§5006.2. Operator Training, Certification, and Evaluation for Cranes and Derricks in Construction. (d) Option (1): Certification by an accredited crane operator certifying entity. (1) Certification. Certificates shall be valid for a maximum of five (5) years. An Accredited Certifying Entity shall issue the certificate of competency to operators who successfully demonstrate the qualifications set forth in subsection (g).	Equivalent. No amendments are proposed to subsection 5006.2(d)(1).
1926.1427(d)(1)(ii)(B) Provide certification based on equipment type, or type and capacity.	§5006.1. Mobile Crane and Tower Crane -- Operator Qualifications and Certification (Applicable to Cranes in General Industry Only).	California proposes to clarify the equipment type by cross-referencing to existing section 4884. This

FEDERAL: §	STATE: General Industry Safety Orders	RATIONALE
1926.6 Incorporation by reference 1926.6(b) The standards listed in this section are incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, OSHA must publish a document in the FEDERAL REGISTER and the material must be available to the public.	(c) Accredited Certifying Entity. The crane operator testing organization providing the certification shall be accredited by an approved nationally recognized accrediting agency. The accreditation shall be based on ~~that~~ the accrediting agency's determination that industry-recognized criteria for written testing materials, practical examinations, test administration, grading, facilities/equipment, and personnel have been met. For purposes of this section, crane types shall correspond with the standards referenced in section 4884.	proposed amendment is commensurate with the federal standard. No amendments are proposed for section 4884. Equivalent / More Protective California incorporates more standards than Federal OSHA.
1926.6(h) The following material is available for purchase from the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016; telephone: 1-800-843-2763; fax: 973-882-1717; e mail: infocentral@asme.org; Web site: http://www.asme.org/ 1926.6(h)(1) ASME B30.2-2005, Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist), issued Dec. 30, 2005	§5006.2. Operator Training, Certification, and Evaluation for Cranes and Derricks in Construction. (c) Operator certification and licensing. The employer shall ensure that each operator is certified or licensed to operate the equipment in accordance with subsection (d) Option 1, or (e) Option 2 as follows. (1) Whenever operator certification or licensure is required under this section, the employer shall provide the certification or licensure at no cost to employees. For purposes of this section, crane types shall correspond with the standards referenced in section 4884.	No corresponding federal requirement. Cross-reference to section 4884 was added for clarity. This proposed amendment is commensurate with the federal standard.

FEDERAL: §	STATE: General Industry Safety Orders	RATIONALE
("ASME B30.2-2005"), IBR approved for §1926.1438(b). 1926.6(h)(2) ASME B30.5-2004, Mobile and Locomotive Cranes, issued Sept. 27, 2004 ("ASME B30.5-2004"), IBR approved for §§1926.1414(b); 1926.1414(e); 1926.1433(b). 1926.6(h)(3) ASME B30.7-2001, Base-Mounted Drum Hoists, issued Jan. 21, 2002 ("ASME B30.7-2001"), IBR approved for §1926.1436(e). 1926.6(h)(4) ASME B30.14-2004, Side Boom Tractors, issued Sept. 20, 2004 ("ASME B30.14-2004"), IBR approved for §1926.1440(c). 1926.6(h)(5) ASME Boiler and Pressure Vessel Code, Section VIII, 1968, IBR approved for §§1926.152(i), 1926.306(a), and 1926.603(a). 1926.6(h)(6) ASME Power Boilers, Section I, 1968, IBR approved for §1926.603(a).		

FEDERAL: §	STATE: General Industry Safety Orders	RATIONALE
1926.1427(e)(6)(ii) Valid for 5 years.	§5006.1. Mobile Crane and Tower Crane -- Operator Qualifications and Certification (Applicable to Cranes in General Industry Only). (d) Re-certification. Crane operators shall re-certify every five (5) years and shall be required to meet all of the qualifications set forth in subsection (a). (1) Operators ~~with~~ shall not be required to take the "hands-on" examination specified in subsection (a)(4) to re-certify when they have met the following requirements: (A) Completed at least one-thousand (1,000) hours of documented experience operating the specific type of crane for which re-certification is sought as covered by this section during the immediately preceding certification period; and ~~who~~ (B) M~~me~~et the physical examination, substance abuse, and written examination requirements set forth in subsections (a)(1), (a)(2) and (a)(3) of this section. (2) ~~shall not be required~~ An Accredited Certifying Entity may require an operator to take the "hands-on" examination despite compliance with subsections (d)(1)(A) and (B). The Accredited Certifying Entity may determine a "hands-on" examination is necessary based on reports of accidents, safety concerns or retraining requirements from employers or other parties ~~specified in subsection (a)(4) to recertify~~.	Proposed amendments to subsection (d) go beyond Fed OSHA requirements. However, these amendments are commensurate with the federal standard.

FEDERAL: §	STATE: General Industry Safety Orders	RATIONALE
1926.1427(d) Certification by an accredited crane operator testing organization. 1926.1427(d)(1) For a certification to satisfy the requirements of this section, the crane operator testing organization providing the certification must: 1926.1427(d)(1)(i) Be accredited by a nationally recognized accrediting agency based on that agency's determination that industry-recognized criteria for written testing materials, practical examinations, test administration, grading, facilities/equipment, and personnel have been met.	§5006.2. Operator Training, Certification, and Evaluation for Cranes and Derricks in Construction. (d)(2) For a certification to satisfy the requirements of this option, the crane operator testing organization providing the certification shall be accredited by an approved nationally recognized accrediting agency. The accreditation shall be based on ~~that~~ the accrediting agency's determination that industry-recognized criteria for written testing materials, practical examinations, test administration, grading, facilities/equipment, and personnel have been met.	Proposed amendments to subsection (d) go beyond Fed OSHA requirements. However, these amendments are commensurate with the federal standard.
	§5006.2. Operator Training, Certification, and Evaluation for Cranes and Derricks in Construction. (d)(3) Re-certification. Crane operators shall re-certify every five (5) years and shall be required to meet all of the qualifications set forth in subsection (d)(1). (A) Operators ~~with~~ shall not be required to take the “hands-on” examination specified in subsection (g)(4) to re-certify when they have met the following requirements: (i) Completed at least one-thousand (1,000) hours of documented experience operating the specific type of crane for which re-certification is sought as covered by this	California provides criteria that must be fulfilled in order to be recertified using the exemption. Proposed changes clarify existing language. These proposed amendments are commensurate with the federal standard.

FEDERAL: §	STATE: General Industry Safety Orders	RATIONALE
	section during the immediately preceding certification period; and ~~who~~ (ii) M~~me~~et the physical examination, substance abuse, and written examination requirements set forth in subsection (g)(1)-(g)(3). (B) ~~shall not be required~~ An Accredited Certifying Entity may require an operator to take the "hands-on" examination despite compliance with subsections (d)(3)(A)(i) and (ii). The Accredited Certifying Entity may determine a "hands-on" examination is necessary based on reports of accidents, safety concerns, or retraining requirements from employers or other parties ~~specified in subsection (g)(4) to re-certify~~.	

JULY 24, 2024

ADVISORY COMMITTEE MEETING

RECERTIFICATION OF CRANE OPERATORS

ROSTER

MINUTES

Occupational Safety and Health Standards Board

Public and Business Meeting

Petition 615

Prepared by the Department of Industrial Relations
Available on the DIR web page: Standards Board (OSHSB) 2026 Meeting Schedule

STATE OF CALIFORNIA
DEPARTMENT OF INDUSTRIAL RELATIONS
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
2520 Venture Oaks Way, Suite 350
Sacramento, California 95833
(916) 274-5721

In the Matter of a Petition by:	)	
	)	
Line Work Bucket Products	)	
	)	
	)	
	)	**PETITION FILE NO. 615**
Applicant.	)	

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION.

OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD

JOSEPH M. ALIOTO JR., Chairman

DAVE HARRISON, Member

CASSIE HILASKI, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

JOSHUA LEPPER, Member

DEREK URWIN, Member

By: _____
Millicent Barajas, Executive Officer

DATE: November 19, 2026
Attachments

OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833
(916) 274-5721
www.dir.ca.gov/oshsb

PROPOSED PETITION DECISION OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD (PETITION FILE NO. 615)

I. INTRODUCTION

On June 1, 2026, the Occupational Safety and Health Standards Board (Board or OSHSB) received a petition from Landon Dees of Line Work Bucket Products (Petitioner), to amend title 8, California Code of Regulations, Section 3648, Operating Instructions for Aerial Devices to address fire emergency preparedness for aerial-device work.

II. SUMMARY

The Petitioner asks the Board to amend title 8, section 3648 to include language requiring that employers evaluate reasonably foreseeable fire hazards associated with workers performing elevated work from aerial devices. Petitioner submitted incident data collected from Federal OSHA accident search results and various news reporting agencies from several U.S. states. Petitioner states that fire emergencies present an increased hazard for workers using aerial devices and elevated work platforms and asserts the following:

- Based on the submitted incident data, fire-related emergency events are a distinct problem that may not be addressed by existing regulations.
- Workers in utilities, electrical, line-clearance, and tree-care may be at increased risk of fire emergencies at elevated locations.

Additionally, Petitioner suggests performance-based safety regulations directing employers to evaluate fire hazards and maintain effective emergency procedures, appropriate PPE, rescue planning, and timely access to fire suppression or emergency descent options.

The Petitioner proposes to include the following language in title 8 section 3648[1]:

> Employers who use aerial devices shall evaluate reasonably foreseeable fire hazards associated with elevated work, including hydraulic fluid ignition, electrical arc events, hot work, battery-powered tools, vehicle fires, combustible vegetation, and environmental fire exposure. Where such hazards exist, employers shall ensure employees have effective emergency procedures, appropriate PPE, rescue planning, and timely access to fire suppression or emergency descent options

[1] Underlined text indicates proposed new text while strikeout of text signifies proposed text deletion.

appropriate to the hazard.

III. RELEVANT STANDARDS

A. Federal Standards

Federal Occupational Safety Health Administration (OSHA) standards specifically addressing powered platforms, manlifts, and vehicle-mounted platforms were first published under Title 29, Code of Federal Regulations (CFR), Part 1910, Subpart F in 1974. These regulations have undergone various amendments, and vertical standards have also been adopted at the federal level to address aerial devices and elevating work platforms under specific industries and uses, including in electric power transmission and distribution, and telecommunication. Other federal OSHA regulations are in place that regulate the general requirements for fire extinguishers, fire prevention, hot work, medical services and first aid, fall protection, and emergency planning that are applicable to users of aerial devices and elevating work platforms.

Title 29, Code of Federal Regulations, Part 1910 – Occupational Safety and Health Standards:

- §1910.38 – Emergency Action Plans: Requirements of an emergency action plan, including reporting of fire, evacuation, and accounting for all employees.
- §1910.67 – Vehicle-Mounted Elevating and Rotating Work Platforms: addresses the safe use and operation of vehicle-mounted elevating and rotating work platforms.
- §1910.68 – Manlifts: addresses the safe use and operation of manlifts.
- §1910.132 – General Requirements: requires employers to assess the workplace to determine if hazards may be present that could necessitate Personal Protective Equipment.
- §1910.157 – Portable Fire Extinguishers: applies to the placement, use, maintenance, and testing of portable fire extinguishers.
- §1910.252 – Welding, Cutting and Brazing: addresses fire prevention and protection for welding, cutting and brazing operations, including basic fire hazards precautions, guards, combustible materials, fire extinguisher, and fire watch requirements.
- §1910.268 – Telecommunications: addresses telecommunications operations, including various requirements for work performed from aerial devices.
- §1910.269 – Electric Power Generation, Transmission, and Distribution: requires the employer to assess the workplace to identify employees exposed to hazards from flames or electric arcs.
- §1910.333 – Selection and Use of Work Practices: establishes minimum approach distances for aerial devices from high-voltage conductors.

Title 29, Code of Federal Regulations, Part 1926 – Safety and Health Regulation for Construction:

- §1926.20 – General Safety and Health Provisions: establishes the accident prevention responsibility of the employer, including provisions which require

frequent and regular inspections of the job site, materials, and equipment made by a competent person.
- §1926.24 – Fire Protection and Prevention: requires the employer to develop and maintain an effective fire protection and prevention program at the job site.
- §1926.35 – Employee Emergency Action Plans: requirements of an emergency action plan, including emergency escape procedures and rescue duties.
- §1926.150 – Fire Protection: general requirements for fire protection, including fire extinguishers.
- §1926.453 – Aerial Lifts: general requirements for safe operation of aerial lifts.
- §1926.952 – Job Briefing: requires a job briefing before each job when constructing electric power transmission and distribution lines and equipment.

B. California Standards

California adopted Federal OSHA standards in title 8 California Code of Regulations (CCR) Articles 24 and 26 in 1975 with rules addressing safe operating instructions for elevating work platforms and vehicle mounted elevating and rotating work platforms, respectively. In 1984, Article 26 specific to vehicle mounted elevating and rotating work platforms was repealed and Article 24 added an additional section specific to safe operating instructions for all aerial devices, including vehicle mounted and rotating platforms.

Title 8, California Code of Regulations, General Industry Safety Orders (GISO):

- §3203 – Injury and Illness Prevention Program: requires all employers to have procedures for identifying and evaluating workplace hazards and identify unsafe conditions while also providing methods and/or procedures for correcting such.
- §3220 – Emergency Action Plan: provides the requirements of an Emergency Action Plan.
- §3221 – Fire Prevention Plan: provides the requirements for a Fire Prevention Plan, including the identification of potential fire hazards.
- §3380 – Personal Protective Devices: requires employers to assess the workplace, determine hazards, and select personal protective equipment for employee use.
- §3421 – General: general requirements for workers performing tree work, maintenance, or removal.
- §3642 – Platform Equipment: provides requirements for the platform deck of elevating work platforms and includes the requirement that any powered elevating assembly with a platform height exceeding 60 inches shall have safe emergency lowering means.
- §3646 – Operating Instructions (Elevating Work Platforms): provides the operating instructions for elevating work platforms.
- §3648 – Operating Instructions (Aerial Devices): provides the operating instructions for aerial devices.
- §4848 – Fire Prevention and Suppression Procedure: requires an employer to establish fire prevention and suppression procedures for welding and cutting operations whenever gas welding and cutting operations occur on the employer's

property.
- §5550 – Repairs to Equipment: requires an inspection of the work area and use of safe procedures for hot work, use of spark-producing tools or chipping operations.
- §6151 – Portable Fire Extinguishers: addresses fire extinguisher general requirements, selection and distribution, inspection, maintenance and testing, and training.

Title 8, California Code of Regulations, Construction Safety Orders (CSO):
- §1510 – Safety Instructions for Employees: requires that workers are given instructions regarding hazards applicable to the work and the procedures for protecting themselves from injury.
- §1511 – General Safety Precautions: requires that, prior to employee presence, the employer shall make a thorough survey of site conditions to determine predictable hazards and necessary employee safeguards.
- §1920 – General Requirements: requires the employer to develop a fire protection program and provide readily accessible firefighting equipment in operating condition, without delay, should a fire hazard occur.
- §1922 – Portable Fire Fighting Equipment: general requirements for fire extinguishers.
- §1933 – Fire Control: additional requirements for fire control devices where flammable or combustible liquids are stored.

Title 8, California Code of Regulations, Electrical Safety Orders (ESO):
- §2320.11 – Protection From Flames and Electric Arcs: requires a hazard assessment to identify employees exposed to hazards from flames or electric arcs, as well as other general requirements for protection from flames and electric arcs for worker covered under the Low-Voltage Electrical Safety Orders (LVESO).
- §2940 – General Provisions: general provisions for high-voltage electrical work, requires safety devices to be furnished and maintained as necessary, safety observers, communication and instruction, and a job briefing before each job.
- §2940.11 – Protection From Flames and Electric Arcs: requires a hazard assessment to identify employees exposed to hazards from flames or electric arcs, as well as other general requirements for protection from flames and electric arcs for workers covered under the High-Voltage Electrical Safety Orders (HVESO).
- §2946 – Provision for Preventing Accidents Due to Proximity to Overhead Lines.
- §2951 – Line Clearance (Tree Trimming) Operations: applies specifically to line clearance operations under the HVESO and includes requirements for inspections to identify potential hazards and to hold a job briefing prior to work commencing.

Title 8, California Code of Regulations, Telecommunication Safety Orders (TSO):
- §8600 – Application: telecommunications operations are subject to all applicable orders contained within the General Industry, Construction, and Electrical Safety

Orders if no specific regulation exists under the TSO. In relevancy to Petition No. 615, telecommunication is primarily regulated by the preceding safety orders for work involving aerial device and elevating work platform usage.

C. Consensus Standards

ANSI Z133-2026 – Safety and Health Requirements for Arboricultural Operations: provides criteria for those engaged in arboricultural operations and details requirements for general safety, electrical hazards, and vehicle and mobile equipment operations.

ANSI/SAIA A92.22-2021 – Safe Use of Mobile Elevating Work Platforms (MEWPs): provides guidance regarding inspection, maintenance, repair, and safe operation for all types of Mobile Elevating Work Platforms (MEWP).

NFPA 10, Standard for Portable Fire Extinguishers (2026): standards for portable fire extinguishers, including selection, installation, inspection, maintenance, and recharging.

D. Other Standards, Guidelines, and Codes

- Oregon, Nevada, and Arizona have adopted the federal OSHA regulations pertaining to aerial device and elevating work platform usage, as well as those regarding fire extinguishers, fire prevention, hot work, medical services and first aid, fall protection, and emergency planning.
- OSHA Fact Sheet – Aerial Lifts (2011)[2]: provides general guidance for safe operation of aerial lifts.
- IPAF Principles of Recovery and Rescue Guidance (2025)[3]: operational manual for elevated platform emergency rescue protocols.
- SAIA AWP Best Practices for Workplace Risk Assessment (2013)[4]: workplace risk assessment, equipment selection, and general training.

IV. CAL/OSHA'S EVALUATION

The Cal/OSHA evaluation recommends that Petition 615 be granted to the extent that the Standards Board staff convene an advisory committee to consider the proposed changes from the Petitioner. According to Cal/OSHA, current regulations do not specifically require employers to evaluate fire-response measures for employees who may become stranded in the air during a fire emergency, nor do they address emergency descent capabilities, aerial

[2] Occupational Safety and Health Administration. (2011). *Aerial lifts factsheet.* https://www.osha.gov/sites/default/files/publications/AERIAL-LIFTS-FACTSHEET.pdf

[3] International Powered Access Federation. (2025). Principles of Recovery and Rescue Guidance. https://www.ipaf.org/sites/default/files/2025-11/IPAF%2042801%20-%20The%20Principles%20of%20recovery%20and%20rescue%20guidance%20document.pdf

[4] Scaffold and Access Industry Association. (2013). *Statement of best practices for workplace risk assessment and aerial work platform equipment selection.* https://saia.org/wp-content/uploads/2025/03/AWP-Best-Practice-Workplace-Risk-Assessment.pdf

rescue procedures, coordination with ground personnel, or other response measures intended to facilitate rapid evacuation from elevated work locations. As a result, while existing standards contain numerous provisions intended to prevent fires from occurring, they do not comprehensively address emergency response for workers who cannot readily escape from an aerial device if a fire or thermal event occurs.

Cal/OSHA points to the example that, under title 8 section 6151, fire extinguishers are not required if the employer establishes an emergency action plan and fire prevention plan and determines employees will not use extinguishers. If an extinguisher is required, it must be "readily accessible," but section 6151(c)(1) does not expressly state that a fire extinguisher is required in an aerial basket. Cal/OSHA also notes that section 3648 regulates how aerial devices are operated, but it does not provide requirements regarding emergency descent procedures, aerial rescue coordination, or specialized fire-resistant mitigation for workers trapped in the air.

Cal/OSHA also flagged that the Petitioner compiled numerous historical incidents and OSHA investigations involving elevated fires and burn injuries, and Cal/OSHA determined that these events demonstrate that when hydraulic failures, electrical faults, or environmental fires occur around aerial equipment, the inability to quickly escape or suppress the fire at height frequently escalates equipment failures into catastrophic life-threatening events.

V. BOARD STAFF'S EVALUATION

The Board staff evaluation recommends that Petition 615 be denied. In drafting the evaluation, Board staff consulted with Petitioner and reviewed the provided incident data and supporting materials. The Board staff evaluation found that there was no conclusive evidentiary support for Petitioner's concern that fire-related emergencies occurring in elevated work locations present a serious and distinct challenge not currently addressed by existing regulations. Petition 615 was thoroughly reviewed, along with the supporting incident data and additional California specific injury and fatality data. The Board staff evaluation noted that, although nationwide data shows that such events have occurred, it does not establish that these incidents would have been avoided by any additional regulations. The hazards noted in Petition 615 were reviewed, along with the performance-based language Petitioner requests to be added to cover all aerial device and elevating work platform usage, and Board staff confirmed through a comprehensive review of title 8 that they are all addressed through existing regulations. Additional information was reviewed from relevant consensus standards, peer-reviewed articles, and publications from both U.S. based and international organizations who monitor safety and incidents resulting from use of aerial devices and elevating work platform. Board staff was unable to identify a source that included fire-related emergencies as being a primary cause of serious injury and fatality, or which provided any additional recommendations specific to such occurrences. Though Board staff recognizes that some employers do elect to implement additional fire-related emergency procedures where it is in the interest of safety for their operations, the evidence presented does not support imposing those additional measures

statewide under title 8 regulations that would be applicable to all aerial device and elevating work platform operations.

VI. DISCUSSION

In their evaluations, Cal/OSHA and Board staff took different perspectives on the need for additional regulations to protect workers in aerial devices from fire-related emergencies. Board staff does not see the need for additional protection, while Cal/OSHA believes further discussion is warranted.

While the Board staff evaluation recognizes that a worker positioned at elevation may face unique operational challenges during a fire emergency, including restricted mobility, delayed access to ground-based fire suppression equipment, equipment damage or malfunction preventing descent, proximity to energized electrical equipment, and increased fall hazards associated with emergency evacuation, the mere existence of a workplace hazard alone does not demonstrate that existing regulations are inadequate or that additional rulemaking is warranted. The Board staff evaluation found that, although incidents demonstrate that aerial device fires and fire-related emergencies have occurred, they do not indicate a single recurring hazard unique to aerial devices or elevating work platforms. Instead, these incidents represent a broad range of hazards and proximate causes that are widely applicable to work at any elevation and that are already regulated in both title 29, CFR and title 8, CCR, respectively.

On the other hand, Cal/OSHA believes that current regulations do not specifically require employers to evaluate fire-response measures for employees who may become stranded in the air during a fire emergency, nor do they address emergency descent capabilities, aerial rescue procedures, coordination with ground personnel, or other response measures intended to facilitate rapid evacuation from elevated work locations. As noted by Cal/OSHA, the Petitioner compiled numerous historical incidents and OSHA investigations involving elevated fires and burn injuries. These events demonstrate that when hydraulic failures, electrical faults, or environmental fires occur around aerial equipment, the inability to quickly escape or suppress the fire at height frequently escalates equipment failures into catastrophic life-threatening events.

Given the differing perspectives, an advisory committee meeting may be an appropriate venue to determine the need for additional rulemaking with key stakeholders.

VII. CONCLUSION AND ORDER

The Board has considered the petition of Landon Dees of Line Work Bucket Products (Petitioner), to amend title 8, California Code of Regulations, Section 3648, Operating Instructions for Aerial Devices. For reasons stated in the preceding discussion, Petition 615 is GRANTED to the extent Board staff considers the necessity of convening an advisory committee meeting to discuss potentially amending title 8, California Code of Regulations, Section 3648 to address fire emergency preparedness for aerial-device work.

State of California
Department of Industrial Relations
Occupational Safety and Health Standards Board

Petition File No. 615

Board Staff Evaluation
Submitted by Jeremy Proctor, Senior Safety Engineer

July 22, 2026

State of California

Gavin Newsom, Governor

INTRODUCTION

Petition No. 615 (Petition) was submitted by Landon Dees (Petitioner) on June 1, 2026. The Petition asks the Board to evaluate whether title 8 regulations sufficiently require workers using aerial devices and elevating work platforms to be prepared to address fire emergencies that may occur in their elevated location.

REQUESTED ACTION

Petitioner requests that the Board convene an Advisory Committee or initiate rulemaking to address emergency fire preparedness for workers using aerial devices and elevating work platforms, including provisions for preplanning, job briefings, fire suppression, and emergency descent.

BACKGROUND/HISTORY

Federal Occupational Safety Health Administration (OSHA) standards specifically addressing powered platforms, manlifts, and vehicle-mounted platforms were first published under Title 29, Code of Federal Regulations (CFR), Part 1910, Subpart F in 1974. These regulations have undergone various amendments, and vertical standards have also been adopted at the federal level to address aerial devices and elevating work platforms under specific industries and uses, including in electric power transmission and distribution, and telecommunication. Other federal OSHA regulations are in place that regulate the general requirements for fire extinguishers, fire prevention, hot work, medical services and first aid, fall protection, and emergency planning that are applicable to users of aerial devices and elevating work platforms.

California adopted these Federal OSHA standards in title 8 California Code of Regulations (CCR) Articles 24 and 26 in 1975 with rules addressing safe operating instructions for elevating work platforms and vehicle mounted elevating and rotating work platforms, respectively. In 1984, Article 26 specific to vehicle mounted elevating and rotating work platforms was repealed and Article 24 added an additional section specific to safe operating instructions for all aerial devices, including vehicle mounted and rotating platforms. These sections do not impose specific requirements for emergency fire preparedness and planning, though California does have robust requirements applicable to workers on such machines, including requirements for hazard assessment and hazard correction, fire extinguishers, fire prevention, hot work, medical services and first aid, fall protection, and emergency planning. Board staff did not identify any national consensus standards that expressly address elevated fire emergencies and would require or recommend any type of platform-level fire suppression, job briefings, or specialized emergency descent devices applicable to all aerial devices and elevating work platforms regardless of industry or application.

No current or previous Board action has been identified which specifically addresses fire emergencies localized to a worker's elevated work location. The Board did receive Petition No. 604 in 2024, specific to aerial devices, that requested amending the Heat Illness Prevention standards under title 8, section 3395(c) to prescribe that cup holders be located within aerial devices. Petition No. 604 was denied. In their adopted decision, the Board cited concerns that requiring the inclusion of additional accessories and/or attachments to the rails of aerial devices may create an additional hazard to workers in the form of increased arc and/or arc-flash potential and could create a falling object hazard for workers positioned below.

PETITIONER'S ASSERTIONS

With Petition No. 615, Petitioner submitted incident data collected from Federal OSHA accident search results and various news reporting agencies from several U.S. states. Petitioner states that fire emergencies present an increased hazard for workers using aerial devices and elevated work platforms and asserts the following:

- Based on the submitted incident data, fire-related emergency events are a distinct problem that may not be addressed by existing regulations.
- Workers in utilities, electrical, line-clearance, and tree-care may be at increased risk of fire emergencies at elevated locations.

Additionally, Petitioner suggests performance-based safety regulations directing employers to evaluate fire hazards and maintain effective emergency procedures, appropriate PPE, rescue planning, and timely access to fire suppression or emergency descent options.

On June 11, 2026, Board staff discussed Petition 615 with Petitioner. During this discussion, Petitioner affirmed that their suggested regulatory language is core to their request and the conversation is summarized as follows:

- Petitioner desires rulemaking that would specifically address fire emergencies that may occur at the platform of aerial devices and elevating work platforms.
- Workers at elevation should have immediate access to fire suppression devices.
- Workers should have a way to self-evacuate from an aerial device in cases of emergency, such as by rappelling.
- The potential for a fire emergency should be evaluated for all work from aerial platforms.
- Emergency and rescue plans should be developed whenever there is a risk of fire at an elevated location.
- Pre-job briefings should be conducted daily with all workers involved with aerial devices and elevating work platforms.
- Petitioner clarified that their request is applicable to all work performed from elevating work platforms and aerial devices, not specific to any industry or machine type.

STAFF EVALUATION

Board staff consulted with Petitioner and reviewed the provided incident data and supporting materials. The Petitioner submitted nationwide occurrences from 1987 to 2025 that document incidents relating to aerial devices, elevating work platforms, and fire. Nine of the 70 documented incidents are reported by news/media and the remainder from OSHA investigation summaries. All of the submitted incidents were reviewed to identify common causal factors, injury patterns, or any indication of recurring hazards or regulatory deficiencies. Of those incidents, eight occurred within California. These California incidents were further reviewed to determine whether any regulatory gaps exist within current title 8 regulations.

Additional data regarding aerial devices and elevating work platforms was acquired from sources such as the International Powered Access Federation (IPAF), the National Institute of Occupational Safety and Health (NIOSH), The Center for Construction Research and Training (CPWR), and the Occupational Safety and Health Administration (OSHA).

Various federal and state regulations were reviewed, as well as applicable consensus standards developed by organizations including the American National Standards Institute (ANSI) and the National Fire Protection Association (NFPA). While only a small number of regulations and standards apply specifically to aerial devices and elevating work platforms, the Petitioner's broad request required a comprehensive review of all that apply to aerial device usage, hazard assessment and correction, fire suppression and extinguishers, and emergency action and response.

Relevant Standards

Federal Standards

Title 29, Code of Federal Regulations, Part 1910 – Occupational Safety and Health Standards:

- **§1910.38 – Emergency Action Plans:** Requirements of an emergency action plan, including reporting of fire, evacuation, and accounting for all employees.
- **§1910.67 – Vehicle-Mounted Elevating and Rotating Work Platforms:** addresses the safe use and operation of vehicle-mounted elevating and rotating work platforms.
- **§1910.68 – Manlifts:** addresses the safe use and operation of manlifts.
- **§1910.132 – General Requirements:** requires employers to assess the workplace to determine if hazards may be present that could necessitate Personal Protective Equipment.
- **§1910.157 – Portable Fire Extinguishers:** applies to the placement, use, maintenance, and testing of portable fire extinguishers.

- **§1910.268 – Telecommunications:** addresses telecommunications operations, including various requirements for work performed from aerial devices.
- **§1910.269 – Electric Power Generation, Transmission, and Distribution:** requires the employer to assess the workplace to identify employees exposed to hazards from flames or electric arcs.

Title 29, Code of Federal Regulations, Part 1926 – Safety and Health Regulation for Construction:

- **§1926.20 – General Safety and Health Provisions:** establishes the accident prevention responsibility of the employer, including provisions which require frequent and regular inspections of the job site, materials, and equipment made by a competent person.
- **§1926.24 – Fire Protection and Prevention:** requires the employer to develop and maintain an effective fire protection and prevention program at the job site.
- **§1926.35 – Employee Emergency Action Plans:** requirements of an emergency action plan, including emergency escape procedures and rescue duties.
- **§1926.150 – Fire Protection:** general requirements for fire protection, including fire extinguishers.
- **§1926.453 – Aerial Lifts:** general requirements for safe operation of aerial lifts.
- **§1926.952 – Job Briefing:** requires a job briefing before each job when constructing electric power transmission and distribution lines and equipment.

California Standards

Title 8, California Code of Regulations, General Industry Safety Orders (GISO):

- **§3203 – Injury and Illness Prevention Program:** requires all employers to have procedures for identifying and evaluating workplace hazards and identify unsafe conditions while also providing methods and/or procedures for correcting such.
- **§3220 – Emergency Action Plan:** provides the requirements of an Emergency Action Plan.
- **§3221 – Fire Prevention Plan:** provides the requirements for a Fire Prevention Plan, including the identification of potential fire hazards.
- **§3380 – Personal Protective Devices:** requires employers to assess the workplace, determine hazards, and select personal protective equipment for employee use.
- **§3421 – General:** general requirements for workers performing tree work, maintenance, or removal.
- **§3642 – Platform Equipment:** provides requirements for the platform deck of elevating work platforms and includes the requirement that any powered elevating assembly with a platform height exceeding 60 inches shall have safe emergency lowering means.

- **§3646 – Operating Instructions (Elevating Work Platforms):** provides the operating instructions for elevating work platforms.
- **§3648 – Operating Instructions (Aerial Devices):** provides the operating instructions for aerial devices.
- **§6151 – Portable Fire Extinguishers:** addresses fire extinguisher general requirements, selection and distribution, inspection, maintenance and testing, and training.

Title 8, California Code of Regulations, Construction Safety Orders (CSO):

- **§1510 – Safety Instructions for Employees:** requires that workers are given instructions regarding hazards applicable to the work and the procedures for protecting themselves from injury.
- **§1511 – General Safety Precautions:** requires that, prior to employee presence, the employer shall make a thorough survey of site conditions to determine predictable hazards and necessary employee safeguards.
- **§1920 – General Requirements:** requires the employer to develop a fire protection program and provide readily accessible firefighting equipment in operating condition, without delay, should a fire hazard occur.
- **§1922 – Portable Fire Fighting Equipment:** general requirements for fire extinguishers.
- **§1933 – Fire Control:** additional requirements for fire control devices where flammable or combustible liquids are stored.

Title 8, California Code of Regulations, Electrical Safety Orders (ESO):

- **§2320.11 – Protection From Flames and Electric Arcs:** requires a hazard assessment to identify employees exposed to hazards from flames or electric arcs, as well as other general requirements for protection from flames and electric arcs for worker covered under the Low-Voltage Electrical Safety Orders (LVESO).
- **§2940 – General Provisions:** general provisions for high-voltage electrical work, requires safety devices to be furnished and maintained as necessary, safety observers, communication and instruction, and a job briefing before each job.
- **§2940.11 – Protection From Flames and Electric Arcs:** requires a hazard assessment to identify employees exposed to hazards from flames or electric arcs, as well as other general requirements for protection from flames and electric arcs for workers covered under the High-Voltage Electrical Safety Orders (HVESO).
- **§2951 – Line Clearance (Tree Trimming) Operations:** applies specifically to line clearance operations under the HVESO and includes requirements for inspections to identify potential hazards and to hold a job briefing prior to work commencing.

Title 8, California Code of Regulations, Telecommunication Safety Orders (TSO):

- **§8600 – Application:** telecommunications operations are subject to all applicable orders contained within the General Industry, Construction, and Electrical Safety Orders if no specific regulation exists under the TSO. In relevancy to Petition No. 615, telecommunication is primarily regulated by the preceding safety orders for work involving aerial device and elevating work platform usage.

Consensus Standards

ANSI Z133-2026 – Safety and Health Requirements for Arboricultural Operations: provides criteria for those engaged in arboricultural operations and details requirements for general safety, electrical hazards, and vehicle and mobile equipment operations.

ANSI/SAIA A92.22-2021 – Safe Use of Mobile Elevating Work Platforms (MEWPs): provides guidance regarding inspection, maintenance, repair, and safe operation for all types of Mobile Elevating Work Platforms (MEWP).

NFPA 10, Standard for Portable Fire Extinguishers (2026): standards for portable fire extinguishers, including selection, installation, inspection, maintenance, and recharging.

Other Standards, Guidelines, Codes

- Oregon, Nevada, and Arizona have adopted the federal OSHA regulations pertaining to aerial device and elevating work platform usage, as well as those regarding fire extinguishers, fire prevention, hot work, medical services and first aid, fall protection, and emergency planning.
- **OSHA Fact Sheet – Aerial Lifts (2011)[1]:** provides general guidance for safe operation of aerial lifts.
- **IPAF Principles of Recovery and Rescue Guidance (2025)[2]:** operational manual for elevated platform emergency rescue protocols.
- **SAIA AWP Best Practices for Workplace Risk Assessment (2013)[3]:** workplace risk assessment, equipment selection, and general training.

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[1] Occupational Safety and Health Administration. (2011). *Aerial lifts factsheet.* https://www.osha.gov/sites/default/files/publications/AERIAL-LIFTS-FACTSHEET.pdf

[2] International Powered Access Federation. (2025). Principles of Recovery and Rescue Guidance. https://www.ipaf.org/sites/default/files/2025-11/IPAF%2042801%20-%20The%20Principles%20of%20recovery%20and%20rescue%20guidance%20document.pdf

[3] Scaffold and Access Industry Association. (2013). *Statement of best practices for workplace risk assessment and aerial work platform equipment selection.* https://saia.org/wp-content/uploads/2025/03/AWP-Best-Practice-Workplace-Risk-Assessment.pdf

Staff Analysis

Fire emergencies occurring at the elevated location of a worker within the platform of an aerial device or elevating work platform may be a recognized workplace hazard. Petitioner desires to see title 8 amended to include language specifically addressing this hazard by requiring assessments for fire hazards, job briefings, the inclusion of a fire suppression device located within the work platform, and means for personnel to self-rescue, such as by rappelling from the platform. Board staff recognizes that a worker positioned at elevation may face unique operational challenges during a fire emergency, including restricted mobility, delayed access to ground-based fire suppression equipment, equipment damage or malfunction preventing descent, proximity to energized electrical equipment, and increased fall hazards associated with emergency evacuation. However, the mere existence of a workplace hazard alone does not demonstrate that existing regulations are inadequate or that additional rulemaking is warranted.

Data Does Not Indicate Regulatory Gaps

Petitioner asserts that potential regulatory gaps are demonstrated by data and that their provided examples show that further Board action could help prevent serious injuries and fatalities. Some commonalities in the data that Petitioner points to as causal of fire emergencies are electric arc and arc flash, electrical contact, elevated workers jumping or falling, welding and other forms of hot work, and fire extinguishers being unavailable or difficult to access during an emergency. In comprehensive review of the submitted data, it is found that, though incidents demonstrate that aerial device fires and fire-related emergencies have occurred, they do not indicate a single recurring hazard unique to aerial devices or elevating work platforms. Instead, these incidents represent a broad range of hazards and proximate causes that are widely applicable to work at any elevation and are already regulated in both title 29, CFR and title 8, CCR, respectively.

Based on Petitioner’s own submitted materials, it can be gleaned that fires at an elevated location are rarely the primary cause of injury or fatality. Of the approximately 70 submitted incidents spanning nearly four decades, the most prominent causal factors of serious injury and fatality are electrical arcing, arc flash, and contact with energized electrical conductors with fire and/or burn injuries listed as a natural result. Upon further in-depth analysis of the incidents, Petitioner’s assertion that the data may indicate potential regulatory deficiencies is not supported by their own evidence. This is evidenced by nearly every investigation resulting in cited offenses of noncompliance under existing regulations.

This interpretation of the data is strongly supported by literature from the Center for Construction Research and Training (CPWR)[4] and the National Institute for Occupational Safety and Health (NIOSH)[5] which demonstrate that electrical hazards, entrapment, and falls consistently account for over 90% of aerial device fatalities. Statistically, occurrences of fire localized to the vicinity of the platform, and not preceded by an electrical event, appear to be very uncommon. The International Powered Access Federation (IPAF), a global organization that promotes safe use of powered access equipment and a partner of the Scaffold and Access Industry Association (SAIA), conducts yearly incident surveys of its 83 member countries, the United States included. In reports from 2015 to present, the IPAF identifies the following six fatal and major incident trends: electrocution and electric shocks, overturns, entrapment, falls from the platform, hit by falling object, and inoperable mechanical/technical.[6] Regulations addressing each of these already exist in current title 8 safety orders.

Since the Petition is specific to California, additional analysis is warranted of the eight incidents provided that did occur within the state, as well as additional data. Placing focus on these eight incidents, along with other incidents that are documented within the state, further demonstrates that the occurrence of injury and fatality is not a result of fire-related emergency incidents or regulatory gaps, as investigation records indicate that the incidents involved violations of existing title 8 requirements. Two of the included incidents[7] do not involve workers working from an aerial device or elevated work platform while the remainder do not substantiate a claim that any level of increased fire preparedness would have resulted in more favorable outcomes. For instance, in three of the incidents[8] the proximate cause was employee or employer action that resulted in incidental contact with an energized electrical source.

Overall, most of the incidents that were submitted by Petitioner include burn injuries resulting from exposure to electrical energy, not from a localized fire event or failed emergency preparedness. Such electrical hazards, however, are already well covered under title 8's ESO, such as section 2940.2 that establishes minimum approach distances, sections 2940.13 and 3314 that dictate control of hazardous energy, section 2940.14 that applies to deenergizing transmission and distribution lines and equipment to protect employees, and section 2941 that applies to situations in which work is done on, or in proximity to, overhead high voltage lines. Enforcement activity in the remaining cases strongly demonstrates that existing regulations are provided for the specific

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[4] MacCollum, D. V. (2007). *Analysis and control of crane and aerial lift hazards.* CPWR – The Center for Construction Research and Training. *https://www.elcosh.org/record/document/1943/d000865.pdf*

[5] Pan, C. (2016). *Aerial lift safety research and practice.* National Institute of Occupational Safety and Health, Centers for Disease Control and Prevention. https://stacks.cdc.gov/view/cdc/203550

[6] International Powered Access Federation (2025). *Global safety report 2025*. https://www.ipaf.org/en-gb/gsr2025

[7] See incidents 21 and 63 in Petitioner's provided data.

[8] See incidents 38, 56, and 58 in Petitioner's provided data.

hazards that were encountered while leaving no indication that increased emergency preparedness would have resulted in a more favorable outcome.

To consider any additional relevant data that may have been missed, further review of injuries and fatalities was performed using the Survey of Occupational Injuries and Illnesses (SOII)[9], and the Census of Fatal Occupational Injuries (CFOI)[10], both administered by the U.S. Bureau of Labor Statistics in cooperation with California's Department of Industrial Relations. Though the CFOI does indicate that 39 workers perished due to fire and explosion from 2015 to 2024, neither source indicates any occurrence of injury or fatality relating to aerial devices or elevating work platforms related to fire emergencies. Additionally, no fire-related fatal events were recorded in three of the last five years. A search was also performed using OSHA's Investigation Summaries for years 2020 through 2025 and included keywords: "aerial", "aerial device", "aerial lift", "boom lift", "manlift", "bucket truck", "elevating work platform", and "elevated".[11] The results, when filtered to include only incidents occurring in California and involving work covered by the Petition, yielded results that included 15 fatal incidents and 53 that resulted in injury. Of the 68 total cases, fire is not included as a primary cause of incident or injury in any of them. Though lack of data is not evidence enough to fully invalidate Petitioner's concern, it does indicate that their assertion that current data indicates a gap or deficiency is unfounded.

Current Title 8 Regulations Already Address Petitioner's Main Concerns

A lack of incidents related to a specific hazard does not present as evidence that the hazard does not exist. Though incident and enforcement data do not indicate a pattern of elevated fire incidents, Petitioner's request received a full review to determine whether regulations already exist that address their concerns or if further Board action could potentially be beneficial. Petitioner specifically requests that regulations be explored that would include provisions for workplace assessments, job briefings, fire suppression equipment, and emergency descent. Since Petitioner identifies utility workers, electrical contractors, line-clearance workers, and tree care personnel as the most affected, special emphasis was placed on identification of regulations applicable to these groups of workers.

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[9] Nonfatal Occupational Injuries and Illnesses in California. https://www.dir.ca.gov/oprl/nonfatal.htm

[10] Department of Industrial Relations. (2026). *Fatal Occupational Injuries in California, 2015 – 2024*. https://www.dir.ca.gov/dosh/CFOI/California-Occupational-Fatalities.pdf

[11] Occupational Safety and Health Administration, "Investigation Summaries", accessed July 07, 2026, https://www.osha.gov/ords/imis/accidentsearch.html

Various existing regulations within title 8 directly or indirectly address work performed from aerial devices and elevating work platforms. The most directly applicable to the equipment and specific operations are found in Article 24 of the GISO [12], sections 3636 through 3648. Sections 3646 and 3648 provide standards on safe operating instruction for both elevating work platforms and aerial devices, respectively. Other applicable regulations exist within title 8 that govern specific operations that may be performed from elevated platforms, such as various construction applications under the CSO[13], low-voltage and high-voltage electrical work under the ESO[14], and the TSO[15]. Many regulations were thoroughly reviewed for applicability, either directly or indirectly, to Petitioner's requests. After comprehensive review, it is confirmed that while no single regulation specifically addresses fire-related emergency preparedness of workers at elevated locations, numerous existing regulations do directly and indirectly address Petitioner's request.

1. Assessing Fire Hazards

Petitioner requests regulatory language to address assessing for fire hazards and provides suggested language, "Employers who use aerial devices shall evaluate reasonably foreseeable fire hazards associated with elevated work…". Current title 8 regulations already require employers to conduct hazard assessments in a practically redundant fashion, including in GISO section 3203(a)(4) that requires employers to have procedures for identifying and evaluating workplace hazards, section 3380(f) that requires employers to assess and determine hazards which may necessitate personal protective equipment, and section 3221 that more specifically requires the identification of:

> (b)(1) Potential fire hazards and their proper handling and storage procedures, potential ignition sources (such as welding, smoking and others) and their control procedures, and the type of fire protection equipment or systems which can control a fire involving them… (d)(1) The employer shall apprise employees of the fire hazards of the materials and processes to which they are exposed.

Though these requirements are already not specific to any one industry, further industry specific requirements are still included in the CSO and ESO. section 1511(b) of the CSO includes the construction industry specific requirement that a thorough site survey be conducted to determine hazards before employee presence at the worksite. Similarly, sections 2320.11(a)(1) and 2940.11(a)(1) of the ESO both explicitly require assessments to identify employees exposed to hazards from flames or electric arcs while section 2951(a), specific to tree trimming operations, also imposes the

[12] 8 Cal. Code Regs. tit. 8, div. 1, ch. 4, subch. 7 https://www.dir.ca.gov/title8/sub7.html
[13] 8 Cal. Code Regs. tit. 8, div. 1, ch. 4, subch. 4 https://www.dir.ca.gov/Title8/sub4.html
[14] 8 Cal. Code Regs. tit. 8, div. 1, ch. 4, subch. 5 https://www.dir.ca.gov/Title8/sub5.html
[15] 8 Cal. Code Regs. tit. 8, div. 1, ch. 4, subch. 21 https://www.dir.ca.gov/Title8/sub21.html

requirement to identify potential hazards. Under these regulations, there is almost no situation in which the potential for a fire hazard should not be assessed.

2. Job Briefings

Though daily job briefings are not a requirement of the regulations directly related to aerial devices and elevating work platforms, they are required under various regulations related to work in which there would be a higher probability of facing fire-related hazards. At minimum, all employers are required by Labor Code section 6401.7 to establish, implement, and maintain an Injury and Illness Prevention Program (IIPP), for which a standard was given in the adoption of section 3203 of the GISO. Every IIPP, according to section 3203(a)(3), must:

> (a)(3) Include a system for communicating with employees in a form readily understandable by all affected employees on matters relating to occupational safety and health, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal. Substantial compliance with this provision includes meetings, training programs, posting, written communications, a system of anonymous notification by employees about hazards, labor/management safety and health committees, or any other means that ensures communication with employees.

In the CSO, section 1509 requires all employers to comply with 3203 and includes an added requirement in subsection (e) that supervisory employees conduct a “toolbox” or “tailgate” meeting at least every 10 working days. For various work tasks that may be, as Petitioner also pointed out, more hazardous, job briefings or meetings are covered by additional vertical standards. For example, employers engaged in tree maintenance and removal are required by section 3421(f) to conduct a job briefing held “by a qualified tree worker before each work assignment is begun” to address any hazards unique to their immediate assignment. Similarly, line clearance operations regulated under section 2951(a) requires a “tail gate briefing” prior to commencing operations. Job briefings are also a general requirement for electrical and utility workers stated in section 2940(g) when performing work covered under the HVESO[16]. While these stated regulations may not be inclusive of all work that may be performed from an aerial device or elevating work platform, they do adequately cover those workers that Petitioner identified as most at-risk of fire-related emergencies at an elevated location.

[16] High-Voltage Electrical Safety Orders are the Group 2 subset under the ESO, sections 2700 – 2989.1, https://www.dir.ca.gov/title8/sb5g2.html

3. Fire Suppression Equipment

Petitioner asserts that current regulations regarding access to fire extinguishers are inadequate, as portable fire extinguishers are generally ground based and inaccessible. Additionally, Petitioner points out that in several of the incidents they submitted, the extinguishers were previously exhausted or otherwise unusable at the time of the incident. As such, Petitioner desires regulatory language requiring operable extinguishers be located within the work platforms if there is potential for a fire hazard. Fire suppression equipment and extinguishers are not directly included in the sections 3646 and 3648, other existing title 8 regulations already provide standards regarding extinguisher maintenance and placement. Placement, selection, use, and maintenance of fire extinguishers in the workplace are primarily regulated by sections 6151, 1920, and 1922. These sections require employers to provide portable fire extinguishers or other suppression equipment, ensure they are inspected and maintained in operating condition, and readily accessible.

Petitioner's primary concern regarding fire suppression equipment is inaccessibility due to an elevated employee's location. Though not expressly required to be placed in the work platform, this requirement is indirectly imposed by the previously mentioned. Specifically, section 6151(c)(1) states that employers, "shall provide portable fire extinguishers and shall mount, locate and identify them so that they are readily accessible to employees without subjecting the employees to possible injury." Similarly, section 1920(a) states that employers, "…shall provide for the fire fighting equipment as specified in this Article. As fire hazards occur, there shall be no delay in providing the necessary fire protection and/or prevention equipment.", while subsection (b) continues that, "A safe and unobstructed access to all available fire fighting equipment shall be maintained at all times."

As discussed, various existing regulations already require assessing for hazards and, often, specifically for fire hazards. The performance-based standards provided by sections 6151 and 1920 require employers to ensure that extinguishers are readily accessible and in a location that will not require an employee to put themselves at risk of bodily harm or injury while retrieving them. Depending upon the employer's hazard assessment, certain tasks may indicate the platform is the optimal location and the employer may plan to safely locate one within. In many scenarios, the platform may not be the ideal or safest location, for either the occupant or those around working below them. As was noted by the Board in their adopted decision of Petition 604, adding additional accessories within aerial device platforms may create other various hazards. The noted hazards of concern included falling object hazards to employees working below, potentially drilling holes in or altering insulated platforms to mount brackets, and potentially adding electrically conductive material that may increase risk of a potential arc and/or arc flash. In that instance, the discussion was around cup holders and water containers. In the current discussion, fire extinguishers, most often made of lightweight metal, and brackets strong enough to hold them during omnidirectional travel over various terrains, would create similar engineering and safety considerations of even

greater severity than cup holders. Electrocution, electrical arcing, and arc flash were previously noted as primary causes of severe injury and fatality for workers on elevated platforms. Any potential increase to these risks would be directly counter to the Petition's primary intent.

Specifying extinguisher placement may carry a multitude of unintended consequences well beyond the current focus. On this point, the Petition fails to provide sufficient evidence that the existing requirements are inadequate or that more prescriptive language would benefit worker safety. The existing performance standards title 8, which require extinguishers to be readily accessible without placing employees at risk, allow employers to assess individual scenarios and determine the best possible location for the equipment while requiring that equipment be inspected and maintained in an operable condition.

4. Emergency Planning, Emergency Descent, and Self-Rescue

Title 8 does not contain a specific regulation requiring emergency planning for workers using aerial devices and elevated work platforms. Instead, various regulations impose this requirement vertically depending on industry and tasks while section 3203(a)(6) requires "methods and/or procedures for correcting unsafe or unhealthy conditions, work practices and work procedures…", of which any reasonably foreseeable emergency would be an unsafe condition and thus likely require a plan. Section 3220 provides the minimum requirements for all emergency action plans, which includes having procedures for emergency evacuation and procedures to be followed by employees performing rescue. Since Petitioner's request is so broad and covers every industry and task involving elevated platforms, any specifics on potential evacuation or rescue procedures would vary substantially, though all would generally be required to have a plan.

Of relevance, section 3642, Platform Equipment, is specific to all elevating platforms and requires:

> (c) Any elevating work platform equipped with a powered elevating assembly and having a platform height exceeding 60 inches shall be supplied with safe emergency lowering means compatible with the specific elevating assembly employed.
>
> (d) Any powered elevating work platform shall have both upper and lower control devices. Controls shall be plainly marked as to their function and guarded to prevent accidental operation. The upper control device shall be in or beside the platform, within easy reach of the operator. The lower control device shall have the capability to lower the platform where the operator's safety is in jeopardy.

At minimum, all platforms must be able to be safely lowered through emergency means and include a lower (ground level) control device capable of lowering the platform if the operator is experiencing an emergency and unable to perform this action without assistance. ANSI/SAIA A92.22-2021 similarly places emphasis on emergency planning and site-specific rescue plans prior to using an elevated platform, without recommending any universal plan or self-rescue devices.

Petitioner also provides the suggestion that workers be provided with specific means to independently self-rescue from elevated platforms through such methods as rappelling in cases where normal operating controls become unavailable. While such methods may already be in use in some industries as part of comprehensive emergency and rescue plans, the concept of a universal requirement for, or even recommendation of, any such specific methods would again represent a departure from the concept of performance-based standards which empower employers to assess their specific hazards and needs in order to provide the most effective protection for their employees.

Further, the safe use of specialized self-rescue equipment would likely require comprehensive planning and training, such as meeting requirements within section 3270.1[17] which governs the use of rope access equipment. Similarly, ANSI standards Z359.2[18] and Z359.4[19] address training for, and systems used in, rescue and self-rescue. These consensus standards mirror various parts of section 3270.1 and require in-depth, hands-on instruction performed by qualified trainers, and require annual hands-on evaluations for any employees assigned rescue or self-rescue duties. Beyond training, employers would face the additional burden of selecting and purchasing appropriate equipment, as well as establishing comprehensive inspection and maintenance schedules to ensure that rescue equipment remains in a readily usable condition. Review of title 8 and ANSI standards demonstrates that requiring specialized self-rescue equipment en masse is not a simple endeavor. Employers would need to take many additional steps and face substantial obligations in ensuring that employees are not only prepared for fire-related emergencies, but also are protected from the additional hazards that are introduced by the possession and use of any complex or specialized equipment.

Self-rescue equipment, such as escape ropes or descent lines, being stored on or deployed from platforms, introduce additional hazards. Improperly selected, improperly cared for, and contaminated equipment like dirty or wet synthetic rope, present as additional conductive paths that raise the potential for electrical contact resulting in arc or arc flash. Improperly deployed ropes or cables also present the opportunity for entanglement in the elevating assembly or other nearby objects and equipment.

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[17] See title 8, §3270.1, Use of Rope Access Equipment, https://www.dir.ca.gov/title8/3270_1.html
[18] ANSI/ASSE Z359.2-2017, Minimum Requirements for a Comprehensive Managed Fall Protection Program.
[19] ANSI/ASSE Z359.4-2013, Safety Requirements for Assisted-Rescue and Self-Rescue Systems, Subsystems, and Components.

Widespread use of such systems could further cause harm to workers who do not have the requisite training and knowledge to deploy such systems. Unnecessary use and unintentional or intentional misuse could result in improper deployment leading to falls, entanglements, and various other complications that may be avoided by personnel using the emergency lowering controls or ground rescue personnel

Conclusion

Petitioner's concern that fire-related emergencies occurring in elevated work locations present a serious and distinct challenge that is not currently addressed by existing regulations is not supported by any conclusive evidence. Petition 615 was thoroughly reviewed, along with the supporting incident data and additional California specific injury and fatality data. Though nationwide data shows that such events have occurred, it does not establish that these incidents would have been avoided by any additional regulations. The hazards noted in Petition 615 were reviewed, along with the performance-based language Petitioner suggests be added to cover all aerial device and elevating work platform usage, and it is confirmed through a comprehensive review of title 8 that they are all addressed through existing regulations. Additional information was reviewed from relevant consensus standards, peer-reviewed articles, and publications from both U.S. based and international organizations who monitor safety and incidents resulting from use of aerial devices and elevating work platform. Board staff was unable to identify a source that included fire-related emergencies as being a primary cause of serious injury and fatality, or provided any additional recommendations specific to such occurrences. Though Board staff recognizes that some employers do elect to implement additional fire-related emergency procedures where it is in the interest of safety for their operations, the evidence presented does not support imposing those additional measures statewide under title 8 regulations that would be applicable to all aerial device and elevating work platform operations.

STAFF RECOMMENDATION

Board staff recommends Petition File No. 615 be DENIED.

State of California
Department of Industrial Relations
Division of Occupational Safety and Health

Memorandum

Date: September 29, 2026

To: Millicent Robinette, Executive Officer
Kevin Goddard, Principal Safety Engineer
Occupational Safety and Health Standards Board

From: Victor Copelan, Senior Safety Engineer
Jason Denning, Principal Safety Engineer
Eric Berg, Deputy Chief
Division of Occupational Safety and Health

Subject: Evaluation of Petition No. 615: Fire Emergency Preparedness for Workers Elevated in Aerial Devices and Bucket Trucks

1.0 INTRODUCTION

On June 2, 2026, the Division of Occupational Safety and Health (Cal/OSHA) received a petition from Mr. Landon Dees (Petitioner) proposing adoption of effective emergency procedures, appropriate PPE, rescue planning, and timely access to fire suppression or emergency descent options appropriate to the hazard.

The petitioner is requesting that title 8, California Code of Regulations, Section 3648, Operating Instructions for Aerial Devices be amended to address fire emergency preparedness for aerial-device work.

Labor Code Section 142.2 permits interested persons to propose new or revised standards concerning occupational safety and health and requires the Occupational Safety and Health Standards Board (Standards Board) to consider such proposals. California Labor Code section 147 requires the Standards Board to refer to Cal/OSHA for evaluation of any proposed occupational safety and health standard.

2.0 PETITIONER'S PROPOSAL AND BASIS FOR AMENDMENT OF TITLE 8 REGULATIONS

2.1 Non-Prescriptive Language Suggested by the Petitioner

The petitioner requests that California Code of Regulations, title 8, section 3648, Operating Instructions for Aerial Devices be amended to include language requiring that Employers evaluate reasonably foreseeable fire hazards associated with workers performing elevated work from aerial devices.

The petitioner proposes to include the following language in title 8 section 3648.

> Employers who use aerial devices shall evaluate reasonably foreseeable fire hazards associated with elevated work, including hydraulic fluid ignition, electrical arc events, hot work, battery-powered tools, vehicle fires, combustible vegetation, and environmental fire exposure. Where such hazards exist, employers shall ensure employees have effective emergency procedures, appropriate PPE, rescue planning, and timely access to fire suppression or emergency descent options appropriate to the hazard.

2.2 Workers In Aerial Devices Cannot Escape From Fire Hazards

The petitioner states that workers in elevated buckets or aerial platforms are unable to move away from fire hazards as readily as ground-level workers. Movement may be restricted by fall protection, limited bucket space, energized infrastructure, boom position, smoke, heat, equipment damage, or loss of controls. In these events, fire suppression access, emergency descent, rescue coordination, and response time may become life-safety factors within seconds. The petitioner asserts that fire extinguishers are typically available on the aerial device trucks but not readily available to workers in the elevated aerial device basket or elevated scissor lift.

2.3 Fire Hazards in Aerial Devices Are Not Adequately Addressed by Current Title 8 Regulations.

The petitioner asserts that California title 8 contains requirements for elevating work platforms and aerial devices, including vehicle-mounted and self-propelled aerial devices used to position personnel, tools, and materials for work at elevation. Existing rules address equipment design, operating instructions, maintenance, platform equipment, guardrails, fall protection, and safe operation.

However, the petitioner asserts that aerial-device fire emergencies present a distinct operational problem that may not be fully addressed by existing general aerial device requirements, portable fire extinguisher rules, or emergency action planning requirements.

2.4 Hierarchy of Controls Should Be Considered for Worker Protection

The petitioner opines that administrative and engineering controls should remain the first line of defense against workplace hazards. Employers should prevent fires through proper equipment maintenance, hydraulic inspections, electrical hazard assessment, hot-work controls, battery/tool management, job briefings, and emergency planning.

However, if these controls fail to eliminate the hazard, additional layers of protection may be necessary.

For aerial-device fire events, PPE is often the last line of defense against thermal exposure, arc flash, smoke, and burn injury. PPE is essential, but PPE alone may not provide sufficient protection if a worker is trapped in an elevated bucket while fire grows beneath or around them.

For that reason, the petitioner believes that Cal/OSHA should consider whether elevated workers performing utility, electrical, tree care, or line-clearance work have additional options such as:

- Fire-resistant or arc-rated PPE appropriate to the work hazard;
- Emergency descent or controlled lowering procedures;
- Aerial rescue planning and practice;
- Readily accessible fire suppression positioned for the elevated worker or immediate rescue crew;
- Inspection requirements for bucket-truck fire extinguishers;
- Job briefing requirements specific to elevated fire emergencies;
- Employer evaluation of whether ground-based extinguishers are realistically accessible during elevated work;
- Training on what to do if a fire starts in, on, or around the bucket, boom, or aerial device

2.5 Incidents Related to Aerial Device Fire Hazards Identified by the Petitioner

The petitioner identified incidents related to aerial device fire hazards through a search of OSHA accident investigations and media reports. A bibliography/source list is attached to the petition submitted to the Standards Board. The petitioner does not assert that all 100 entries are confirmed bucket-truck bucket fires.

2.6 Costs Associated with Aerial Device Fire Incidents

The petitioner asserts that a serious aerial device fire event may affect others besides the injured worker. Known and unknown costs include the following:

- Medical treatment
- Burn care and rehabilitation
- Workers' compensation
- Lost workdays
- Crew downtime
- Emergency response
- Incident investigation
- Safety stand-downs
- Corrective-action meetings
- Retraining
- Equipment replacement
- Bucket truck or boom repairs
- Damaged tools and PPE
- Insurance premium increases
- Legal fees
- Court costs
- Settlements or judgments
- Personnel replacement
- Lost productivity
- Lost bids due to higher incident rates or insurance costs
- Reputational damage
- Emotional trauma to coworkers and families

These costs reinforce the importance of prevention, preparedness, and response-time reduction.

3.0 APPLICABLE TITLE 8 REGULATIONS

California Code of Regulations, title 8 Section 1920 of the Construction Safety Orders addresses fire protection programs and the availability of fire extinguishers. Subsection 1920(a) requires there to be no delay in providing necessary fire protection. This regulation only applies to construction work.

> Subchapter 4. Construction Safety Orders
> Article 36. Fire Protection and Prevention
>
> Section 1920. General Requirements
> (a) The employer shall be responsible for the development of a fire protection program to be followed throughout all phases of the construction work; and he shall provide for the fire fighting equipment as specified in this Article. As fire hazards occur, there shall be no delay in providing the necessary fire protection and/or prevention equipment.
> NOTE: In cases where orders of local jurisdiction are more restrictive, those orders shall prevail.
> (b) A safe and unobstructed access to all available fire fighting equipment shall be maintained at all times.
> (c) All fire fighting equipment, provided by the employer, shall be conspicuously located or the location conspicuously marked.
> (d) All fire fighting equipment shall be maintained in operating condition. Defective equipment shall be immediately replaced

California Code of Regulations, title 8 addresses the provision of fire extinguishers in section 6151 of the General Industry Safety Orders. Subsection 6151(c) requires approved fire extinguishers be readily accessible to employees without subjecting them to injury, and maintained fully charged and in operable condition. Subsection 6151(c) does not apply if an employer has an emergency action plan, a fire protection plan, and does not intend for employees to use fire extinguishers.

> Subchapter 7. General Industry Safety Orders
> Group 27. Fire Protection
> Article 157. Portable Fire Extinguishers
>
> Section 6151. Portable Fire Extinguishers
>
> (a) Scope and Application. The requirements of this Section apply to the placement, use, maintenance, and testing of portable fire extinguishers provided for the use of employees. Section (d) of this section does not apply to extinguishers provided for employee use on the outside of workplace buildings or structures. Where extinguishers are provided but are not intended for employee use and the employer has an emergency action plan and a fire prevention plan which meet the requirements of Sections 3220 and 3221 then only the requirements of Sections (e) and (f) of this Section apply.
>
> *****
>
> (c) General Requirements.
>
> (1) The employer shall provide portable fire extinguishers and shall mount, locate and identify them so that they are readily accessible to employees without subjecting the employees to possible injury.
>
> (2) Only approved portable fire extinguishers shall be used to meet the requirements of this section.

(3) The employer shall not provide or make available in the workplace portable fire extinguishers using carbon tetrachloride or chlorobromomethane extinguishing agents.

(4) The employer shall assure that portable fire extinguishers are maintained in a fully charged and operable condition and kept in their designated places at all times except during use.

(5) The employer shall permanently remove from service by January 1, 1982, all soldered or riveted shell self-generating soda acid or self-generating foam or gas cartridge water type portable fire extinguishers which are operated by inverting the extinguisher to rupture the cartridge or to initiate an uncontrollable pressure generating chemical reaction to expel the agent.

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California Code of Regulations title 8 section 3646 of the General Industry Safety Orders includes operating instructions for the use of elevating work platforms. Subsection 3646(l) requires operators of elevating work platforms to be instructed by a qualified person in the safe use of the work platform. This instruction must be in accordance with the manufacturer's operating instructions, and Section 3203, Injury and Illness Prevention Program and must include the nature of hazards associated with the equipment, including electrical hazards, fall hazards and falling object hazards.

Subchapter 7. General Industry Safety Orders
Group 4. General Mobile Equipment and Auxiliaries
Article 24. Elevating Work Platforms and Aerial Devices
Section 3646. Operating Instructions (Elevating Work Platforms).
* * * *
(l) Employees shall be instructed by a qualified person in the safe use of the work platform in accordance with the manufacturer's operating instructions, and Section 3203, Injury and Illness Prevention Program.
(1) Instruction for employees who erect, disassemble, move, operate, use, repair, maintain, or inspect elevating work platforms shall include, but not be limited to, training in:
(A) The provisions of this section.
(B) The correct procedures for performing their assigned duties.
(C) The nature of hazards associated with the equipment, including electrical hazards, fall hazards and falling object hazards in the work area and correct procedures for dealing with those hazards.
(D) The safe operation and use of elevating work platforms and the proper handling of materials on the work platform.
(E) The maximum load capacity of the work platform based upon installed configuration.

California Code of Regulations title 8 section 3648 of the General Industry Safety Orders includes requirements for the use of aerial devices. Subsection 3648(c) requires only authorized persons to operate aerial devices. Additionally, subsection 3648(k) requires that the insulating properties of an insulated aerial device boom shall not be altered when required to perform work that involves electrical hazards. Finally, Subsection 3648(l) restricts the movement of the aerial device when employees are elevated.

Subchapter 7. General Industry Safety Orders
Group 4. General Mobile Equipment and Auxiliaries
Article 24. Elevating Work Platforms and Aerial Devices

Section 3648 Operating Instructions (Aerial Devices)

* * * *(c) Only authorized persons shall operate an aerial device.
* * * *(k) When an insulated aerial device is required, the aerial device shall not be altered in any manner that might reduce its insulating value.
(l) An aerial device truck shall not be moved when the boom is elevated in a working position with employees in the basket or platform except when all of the following are complied with:
(1) The equipment is specifically designed for this type of operation in accordance with the provisions of Section 3638.
(2) All controls and signaling devices are tested and are in good operating condition.
(3) An effective communication system shall be maintained at all times between the basket or platform operator and where applicable, the vehicle operator.
(4) The route to be traveled is surveyed immediately prior to the work trip, checking for overhead obstructions, traffic, holes in the pavement, ground or shoulder, ditches, slopes, etc., for areas other than paved, a survey should be made on foot.
(5) The speed of the vehicle does not exceed three (3) miles per hour.
(6) Only one employee is in the basket.
(7) Both the driver and/or the elevated employee have been specifically trained for this type of work (towering) in accordance with the manufacturer's recommendations.

California Code of Regulations title 8 section 2940.11 of the Electrical Safety Orders includes requirements for protection from flames and electric arc flash.

Subchapter 5. Electrical Safety Orders
Group 2. High-Voltage Safety Orders
Article 36. Work Practices and Operating Procedures

Section 2940.11 Protection From Flames and Electric Arcs

Scope: This section covers the construction, operation, and maintenance of electric power generation, control, transformation, transmission, and distribution lines and equipment. This includes related equipment for the purpose of communication or metering that are accessible only to qualified employees.
(a) Hazard Assessment.
(1) The employer shall assess the workplace in accordance with GISO, Section 3203 to identify employees exposed to hazards from flames or from electric arcs.

(2) For each employee exposed to hazards from electric arcs, the employer shall make a reasonable estimate of the incident heat energy to which the employee would be exposed.
NOTE 1 to subsection (a)(2): Appendix D to this article provides guidance on estimating available heat energy. The Division of Occupational Safety and Health will deem employers following the guidance in Appendix D to this article to be in compliance with subsection (a)(2) of this section. An employer may choose a method of calculating incident heat energy not included in Appendix D to this article if the chosen method reasonably predicts the incident energy to which the employee would be exposed.
NOTE 2 to subsection (a)(2): This subsection does not require the employer to estimate the incident heat energy exposure for every job task performed by each employee. The employer may make broad estimates that cover multiple system areas provided the employer uses reasonable assumptions about the energy-exposure distribution throughout the system and provided the estimates represent the maximum employee exposure for those areas. For example, the employer could estimate the heat energy just outside a substation feeding a radial distribution system and use that estimate for all jobs performed on that radial system.
(b) Selection and Prohibited Clothing. The employer shall select the apparel based on the hazard assessment in subsection (a)(2) and shall ensure that each employee who is exposed to hazards from flames or electric arcs is provided suitable apparel in accordance with the requirements of Section 2940.6(k). The employer shall not select the apparel that could melt onto the employee's skin or that could ignite and continue to burn when exposed to flames or the heat energy estimated under subsection (a)(2) of this section.
(1) Flame-resistant clothing. The employer shall ensure that the outer layer of clothing worn by an employee, except for clothing not required to be arc rated under subsections (b)(2)(A-E) of this section, is flame resistant under any of the following conditions:
(A) The employee is exposed to contact with energized circuit parts operating at more than 600 volts,
(B) An electric arc could ignite flammable material in the work area that, in turn, could ignite the employee's clothing,
(C) Molten metal or electric arcs from faulted conductors in the work area could ignite the employee's clothing, or
EXCEPTION: Subsection (b)(1)(C) does not apply to conductors that are capable of carrying, without failure, the maximum available fault current for the time the circuit protective devices take to interrupt the fault.
(D) The incident heat energy estimated under subsection (a)(2) of this section exceeds 2.0 cal/cm^2.
(2) Arc rating. The employer shall ensure that each employee exposed to hazards from electric arcs wears protective clothing and other protective equipment with an arc rating greater than or equal to the heat energy estimated under subsection (a)(2) of this section whenever that estimate exceeds 2.0 cal/cm^2. This protective equipment shall cover the employee's entire body, except as follows:
(A) Arc-rated protection is not necessary for the employee's hands when the employee is wearing rubber insulating gloves with protectors or, if the

estimated incident energy is no more than 14 cal/cm^2, heavy-duty leather work gloves with a weight of at least 407 gm/m^2 (12 oz/yd^2).
(B) Arc-rated protection is not necessary for the employee's feet when the employee is wearing heavy-duty work shoes or boots,
(C) Arc-rated protection is not necessary for the employee's head when the employee is wearing head protection meeting GISO, Section 3381 if the estimated incident energy is less than 9 cal/cm^2 for exposures involving single-phase arcs in open air or 5 cal/cm^2 for other exposures,
(D) The protection for the employee's head may consist of head protection meeting GISO, Section 3381 and a faceshield with a minimum arc rating of 8 cal/cm^2 if the estimated incident-energy exposure is less than 13 cal/cm^2 for exposures involving single-phase arcs in open air or 9 cal/cm^2 for other exposures, and
(E) For exposures involving single phase arcs in open air, the arc rating for the employee's head and face protection may be 4 cal/cm^2 less than the estimated incident energy.
(3) Dates.
(A) The requirement in subsection (a)(2) of this section for the employer to make reasonable estimates of incident energy commences October 1, 2018.
(B) The requirement in subsection (a)(1)(D) of this section for the employer to ensure that the outer layer of clothing worn by an employee is flame-resistant when the estimated incident heat energy exceeds 2.0 cal/cm^2 commences October 1, 2018.
(C) The requirement in subsection (b)(2) of this section for the employer to ensure that each employee exposed to hazards from electric arcs wears the required arc-rated protective equipment commences October 1, 2018.
(c) Fuse Handling. When an employee must install or remove fuses with one or both terminals energized at more than 300 volts, or with exposed parts energized at more than 50 volts, the employer shall ensure that the employee uses tools or gloves rated for the voltage. When an employee installs or removes expulsion-type fuses with one or both terminals energized at more than 300 volts, the employer shall ensure that the employee wears eye protection meeting the requirements of Section 3382, uses a tool rated for the voltage, and is clear of the exhaust path of the fuse barrel.
(d) Energized Covered (Noninsulated) Conductors. The requirements of this section that pertain to the hazards of exposed live parts also apply when an employee performs work in proximity to energized covered (noninsulated) wires.
(e) Non-Current-Carrying Metal Parts. Non-current-carrying metal parts of equipment or devices, such as transformer cases and circuit-breaker housings, shall be treated as energized at the highest voltage to which these parts are exposed, unless the employer inspects the installation and determines that these parts are grounded before employees begin performing the work.
(f) Opening and Closing Circuits Under Load. The employer shall ensure that devices used by employees to open circuits under load conditions are designed to interrupt the current involved and the devices used by employees to close circuits under load conditions are designed to safely carry the current involved.

California Code of Regulations title 8 section 2946 of the General Industry Safety Orders includes

provisions to prevent accidents due to proximity to high-voltage overhead lines.

Subchapter 5. Electrical Safety Orders
Group 2. High-Voltage Electrical Safety Orders
Article 37. Provisions for Preventing Accidents Due to Proximity to Overhead Lines

Section 2946. Provision for Preventing Accidents Due to Proximity to Overhead Lines

(a) General. No person, firm, or corporation, or agent of same, shall require or permit any employee to perform any function in proximity to energized high-voltage lines; to enter upon any land, building, or other premises and there engage in any excavation, demolition, construction, repair, or other operation; or to erect, install, operate, or store in or upon such premises any tools, machinery, equipment, materials, or structures (including scaffolding, house moving, well drilling, pile driving, or hoisting equipment) unless and until danger from accidental contact with said high-voltage lines has been effectively guarded against.
(b) Clearances or Safeguards Required. Except where overhead electrical distribution and transmission lines have been de-energized and visibly grounded, the following provisions shall be met:
(1) Over Lines. The operation, erection, or handling of tools, machinery, apparatus, supplies, or materials, or any part thereof, over energized overhead high-voltage lines shall be prohibited.
Exception 1: Aircraft over energized overhead high-voltage lines operating in conformance with:
(A) Applicable regulations administered by the Federal Aviation Administration, and/or
(B) Helicopter Operations, Article 35, Construction Safety Orders, California Administrative Code, Title 8.
Exception 2: Tower cranes (Hammerhead) installed not closer than the minimum clearances set forth in Table 2, whereon the trolley or boom travel is controlled by limit switches which will prevent carrying a load over energized overhead high-voltage lines or within a horizontal distance closer than the minimum clearances set forth in Table 2.
(2) The operation, erection, handling, or transportation of tools, machinery, materials, structures, scaffolds, or the moving of any house or other building, or any other activity where any parts of the above or any part of an employee's body will come closer than the minimum clearances from energized overhead lines as set forth in Table 1 shall be prohibited.
Exception: Amusement rides or attractions shall not be located under or within 15 ft. (4.57 m) horizontally of conductors operating in excess of 600 volts.
Operation of boom-type equipment shall conform to the minimum clearances set forth in Table 2, except in transit where the boom is lowered and there is no load attached, in which case the distances specified in Table 1 shall apply.

TABLE 1

General Clearances Required from Energized Overhead High-Voltage Conductors

Nominal Voltage (Phase to Phase)		*Minimum Required Clearance (Feet)*
600	50,000	6
over 50,000	345,000	10
over 345,000	750,000	16
over 750,000	1,000,000	20

(3) Boom-type lifting or hoisting equipment. The erection, operation or dismantling of any boom-type lifting or hoisting equipment, or any part thereof, closer than the minimum clearances from energized overhead high-voltage lines set forth in Table 2 shall be prohibited.
(4) Storage. The storage of tools, machinery, equipment, supplies, materials, or apparatus under, by, or near energized overhead high-voltage lines is hereby expressly prohibited if at any time during such handling or other manipulation it is possible to bring such tools, machinery, equipment, supplies, materials, or apparatus, or any part thereof, closer than the minimum clearances from such lines as set forth in Table 2.
(c) The specified clearance shall not be reduced by movement due to any strains impressed (by attachments or otherwise) upon the structures supporting the overhead high-voltage line or upon any equipment, fixtures, or attachments thereon.
(d) Any overhead conductor shall be considered to be energized unless and until the person owning or operating such line verifies that the line is not energized, and the line is visibly grounded at the work site.

TABLE 2

Material Storage and Boom-type lifting or hoisting equipment clearances required from energized overhead high-voltage lines.

Nominal Voltage (Phase to Phase)		*Minimum Required Clearance (Feet)*
600	50,000	10
over 50,000	75,000	11
over 75,000	125,000	13
over 125,000	175,000	15
over 175,000	250,000	17

over 250,000	370,000	21
over 370,000	550,000	27
over 550,000	1,000,000	42

(e) A person shall be designated to observe clearance of the equipment and give timely warning for all operations where site conditions or crane configurations make it difficult for the operator to maintain the desired clearance by visual means.
(f) Cage-type boom guards, insulating links, or proximity warning devices may be used on cranes, but the use of such devices shall not alter the requirements of any other section of these Safety Orders even if such device is required by law or regulation.

Article 88 of the title 8 General Industry Safety Orders addresses fire prevention for welding operations. Subsection 4848(a) requires an employer to establish fire prevention and suppression procedures for welding and cutting operations whenever gas welding and cutting operations occur on the employer's property

Subchapter 7. General Industry Safety Orders
Group 10. Gas Systems for Welding and Cutting
Article 88. Fire Prevention in Welding and Cutting Operations

Section 4848. Fire Prevention and Suppression Procedures.

(a) The employer shall establish a fire prevention and suppression procedure whenever any of the operations and processes covered by Sections 4794(a) and 4850(a) are conducted on its property. The employer shall issue and implement instructions on fire prevention and suppression procedures based upon the requirements contained in American National Standards Institute (ANSI/ASC) Z49.1-94, Safety In Welding, Cutting and Allied Processes, Chapters 3 and 6 and National Fire Protection Association (NFPA) 51B-2009, Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, Chapters 3-7, which are hereby incorporated by reference.

Title 8 regulations address the hazards of hot work in section 5550 of the General Industry Safety Orders. This section requires an inspection of the work area and use of safe procedures for hot work, use of spark-producing tools or chipping operations.

Subchapter 7. General Industry Safety Orders
Group 20. Flammable Liquids, Gases and Vapors
Article 142. Industrial Plants

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Section 5550. Repairs to Equipment

Hot work, such as welding or cutting operations, use of spark-producing
power tools, and chipping operations shall be permitted only under
supervision of a qualified person. The individual in charge shall make an
inspection of the area to be sure that it is safe for the work to be done
and that safe procedures will be followed for the work specified.
```

4.0 APPLICABLE FEDERAL OSHA REGULATIONS

Federal OSHA regulations address fire protection and access to firefighting equipment in construction in 29 CFR section 1926.150. Subsection 1926.150(a)(1) includes requirements for employers to develop fire protection plans.

```
Safety and Health Regulations for Construction
1926 Subpart F
Fire Protection and Prevention
Standard Number 1926.150
General Requirements

1926.150(a)(1)
The employer shall be responsible for the development of a fire protection
program to be followed throughout all phases of the construction and
demolition work, and he shall provide for the firefighting equipment as
specified in this subpart. As fire hazards occur, there shall be no delay in
providing the necessary equipment.

1926.150(a)(2)
Access to all available firefighting equipment shall be maintained at all
times.

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Federal OSHA regulations require access to portable fire extinguishers inside general industry workplace buildings and structures in 29 CFR section 1910.157, which is nearly identical to title 8 section 6151 described above in part 3.0 of this evaluation.

Federal OSHA regulations address use powered work platforms in 29 CFR Subpart F of the General Industry Safety Orders. Section 1910.67 includes operating rules powered platforms, manlifts, and vehicle-mounted work platforms.

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Occupational Safety and Health Standards
1910 Subpart F
Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms
Standard Number 1910.67
Vehicle-mounted elevating and rotating work platforms.
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1910.67(c)(2)(ii)
Only trained persons shall operate an aerial lift.
1910.67(c)(2)(iii)
Belting off to an adjacent pole, structure, or equipment while working from an aerial lift shall not be permitted.
1910.67(c)(2)(iv)
Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.
1910.67(c)(2)(v)
A personal fall arrest or travel restraint system that meets the requirements in subpart I of this part shall be worn and attached to the boom or basket when working from an aerial lift.
1910.67(c)(2)(vi)
Boom and basket load limits specified by the manufacturer shall not be exceeded.
1910.67(c)(2)(vii)
The brakes shall be set and outriggers, when used, shall be positioned on pads or a solid surface. Wheel chocks shall be installed before using an aerial lift on an incline.
1910.67(c)(2)(viii)
An aerial lift truck may not be moved when the boom is elevated in a working position with men in the basket, except for equipment which is specifically designed for this type of operation in accordance with the provisions of paragraphs (b)(1) and (b)(2) of this section.
1910.67(c)(2)(ix)
Articulating boom and extensible boom platforms, primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be plainly marked as to their function. Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.

*****

Federal OSHA regulations provide operating rules for aerial devices in construction in 29 CFR section 1926.453 of Subpart L.

Safety and Health Regulations for Construction
1926 Subpart L
Scaffolds
Standard Number 1926.453
Aerial Lifts

1926.453(a)
General requirements.

1926.453(a)(1)
Unless otherwise provided in this section, aerial lifts acquired for use on or after January 22, 1973 shall be designed and constructed in conformance with the applicable requirements of the American National Standards for "Vehicle Mounted Elevating and Rotating Work Platforms," ANSI A92.2-1969, including appendix. Aerial lifts acquired before January 22, 1973 which do not meet the requirements of ANSI A92.2-1969, may not be used after January 1, 1976, unless they shall have been modified so as to conform with the applicable design and construction requirements of ANSI A92.2-1969. Aerial lifts include the following types of vehicle-mounted aerial devices used to elevate personnel to job-sites above ground:

1926.453(a)(1)(i)
Extensible boom platforms;
1926.453(a)(1)(ii)
Aerial ladders;
1926.453(a)(1)(iii)
Articulating boom platforms;
1926.453(a)(1)(iv)
Vertical towers; and
1926.453(a)(1)(v)
A combination of any such devices. Aerial equipment may be made of metal, wood, fiberglass reinforced plastic (FRP), or other material; may be powered or manually operated; and are deemed to be aerial lifts whether or not they are capable of rotating about a substantially vertical axis.
1926.453(a)(2)
Aerial lifts may be "field modified" for uses other than those intended by the manufacturer provided the modification has been certified in writing by the manufacturer or by any other equivalent entity, such as a nationally recognized testing laboratory, to be in conformity with all applicable provisions of ANSI A92.2-1969 and this section and to be at least as safe as the equipment was before modification.

1926.453(b)
Specific requirements -

1926.453(b)(1)
Ladder trucks and tower trucks. Aerial ladders shall be secured in the lower traveling position by the locking device on top of the truck cab, and the manually operated device at the base of the ladder before the truck is moved for highway travel.

1926.453(b)(2)
Extensible and articulating boom platforms.

1926.453(b)(2)(i)
Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition.
1926.453(b)(2)(ii)
Only authorized persons shall operate an aerial lift.
1926.453(b)(2)(iii)

Belting off to an adjacent pole, structure, or equipment while working from an aerial lift shall not be permitted.
1926.453(b)(2)(iv)
Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.
1926.453(b)(2)(v)
A body belt shall be worn and a lanyard attached to the boom or basket when working from an aerial lift.

Note to paragraph (b)(2)(v): As of January 1, 1998, subpart M of this part (§ 1926.502(d)) provides that body belts are not acceptable as part of a personal fall arrest system. The use of a body belt in a tethering system or in a restraint system is acceptable and is regulated under § 1926.502(e).

1926.453(b)(2)(vi)
Boom and basket load limits specified by the manufacturer shall not be exceeded.
1926.453(b)(2)(vii)
The brakes shall be set and when outriggers are used, they shall be positioned on pads or a solid surface. Wheel chocks shall be installed before using an aerial lift on an incline, provided they can be safely installed.
1926.453(b)(2)(viii)
An aerial lift truck shall not be moved when the boom is elevated in a working position with men in the basket, except for equipment which is specifically designed for this type of operation in accordance with the provisions of paragraphs (a) (1) and (2) of this section.

1926.453(b)(2)(ix)
Articulating boom and extensible boom platforms, primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be plainly marked as to their function. Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.
1926.453(b)(2)(x)
Climbers shall not be worn while performing work from an aerial lift.
1926.453(b)(2)(xi)
The insulated portion of an aerial lift shall not be altered in any manner that might reduce its insulating value.
1926.453(b)(2)(xii)
Before moving an aerial lift for travel, the boom(s) shall be inspected to see that it is properly cradled and outriggers are in stowed position except as provided in paragraph (b)(2)(viii) of this section.

Federal OSHA standards establish minimum approach distances for aerial devices from high-voltage conductors in 29 CFR section 1910.333 of Subpart S. Subsection 1910.333 includes requirements for work on energized electrical equipment, overhead lines and minimum approach distances for employees working from vehicular and mechanical equipment including aerial devices.

Occupational Safety and Health Standards
1910 Subpart S
Electrical
Standard Number 1910.333
Selection and Use of Work Practices

*****

1910.333(c)(2)

Work on energized equipment. Only qualified persons may work on electric circuit parts or equipment that have not been deenergized under the procedures of paragraph (b) of this section. Such persons shall be capable of working safely on energized circuits and shall be familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools.

1910.333(c)(3)

Overhead lines. If work is to be performed near overhead lines, the lines shall be deenergized and grounded, or other protective measures shall be provided before work is started. If the lines are to be deenergized, arrangements shall be made with the person or organization that operates or controls the electric circuits involved to deenergize and ground them. If protective measures, such as guarding, isolating, or insulating are provided, these precautions shall prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools, or equipment.

Note: The work practices used by qualified persons installing insulating devices on overhead power transmission or distribution lines are covered by § 1910.269 of this part, not by §§ 1910.332 through 1910.335 of this part. Under paragraph (c)(2) of this section, unqualified persons are prohibited from performing this type of work.

1910.333(c)(3)(i)

Unqualified persons.

1910.333(c)(3)(i)(A)

When an unqualified person is working in an elevated position near overhead lines, the location shall be such that the person and the longest conductive object he or she may contact cannot come closer to any unguarded, energized overhead line than the following distances:

1910.333(c)(3)(i)(A)(1)

For voltages to ground 50kV or below - 10 ft. (305 cm);

1910.333(c)(3)(i)(A)(2)

For voltages to ground over 50kV - 10 ft. (305 cm) plus 4 in. (10 cm) for every 10kV over 50kV.

1910.333(c)(3)(i)(B)

When an unqualified person is working on the ground in the vicinity of overhead lines, the person may not bring any conductive object closer to unguarded, energized overhead lines than the distances given in paragraph (c)(3)(i)(A) of this section.

Note: For voltages normally encountered with overhead power lines, objects which do not have an insulating rating for the voltage involved are considered to be conductive.

1910.333(c)(3)(ii)
Qualified persons. When a qualified person is working in the vicinity of overhead lines, whether in an elevated position or on the ground, the person may not approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in Table S-5 unless:

1910.333(c)(3)(ii)(A)
The person is insulated from the energized part (gloves, with sleeves if necessary, rated for the voltage involved are considered to be insulation of the person from the energized part on which work is performed), or

1910.333(c)(3)(ii)(B)
The energized part is insulated both from all other conductive objects at a different potential and from the person, or

1910.333(c)(3)(ii)(C)
The person is insulated from all conductive objects at a potential different from that of the energized part.

Table S-5 - Approach Distances for Qualified Employees - Alternating Current

Voltage range (phase to phase)	Minimum approach distance
300V and less	Avoid contact.
Over 300V, not over 750V	1 ft. 0 in. (30.5 cm).
Over 750V, not over 2kV	l ft. 6 in. (46 cm).
Over 2kV, not over 15kV	2 ft. 0 in. (61 cm).
Over 15kV, not over 37kV	3 ft. 0 in. (91 cm).
Over 37kV, not over 87.5kV	3 ft. 6 in. (107 cm).
Over 87.5kV, not over 121kV	4 ft. 0 in. (122 cm).

Table S-5 - Approach Distances for Qualified Employees - Alternating Current

Voltage range (phase to phase)	Minimum approach distance
Over 121kV, not over 140kV	4 ft. 6 in. (137 cm).

1910.333(c)(3)(iii)
Vehicular and mechanical equipment.

1910.333(c)(3)(iii)(A)
Any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines shall be operated so that a clearance of 10 ft. (305 cm) is maintained. If the voltage is higher than 50kV, the clearance shall be increased 4 in. (10 cm) for every 10kV over that voltage. However, under any of the following conditions, the clearance may be reduced:

1910.333(c)(3)(iii)(A)(1)
If the vehicle is in transit with its structure lowered, the clearance may be reduced to 4 ft. (122 cm). If the voltage is higher than 50kV, the clearance shall be increased 4 in. (10 cm) for every 10kV over that voltage.

1910.333(c)(3)(iii)(A)(2)
If insulating barriers are installed to prevent contact with the lines, and if the barriers are rated for the voltage of the line being guarded and are not a part of or an attachment to the vehicle or its raised structure, the clearance may be reduced to a distance within the designed working dimensions of the insulating barrier.

1910.333(c)(3)(iii)(A)(3)
If the equipment is an aerial lift insulated for the voltage involved, and if the work is performed by a qualified person, the clearance (between the uninsulated portion of the aerial lift and the power line) may be reduced to the distance given in Table S-5.

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Federal OSHA standards address fire prevention and protection for welding, cutting and brazing operations In 29 CFR section 1910.252 of Subpart Q. Subsection 1910.252(a) includes basic fire hazards precautions, guards, combustible materials, fire extinguisher, and fire watch requirements.

Occupational Health and Safety Standards
1910 Subpart Q
Welding, Cutting and Brazing

Standard Number 1910.252
General Requirements

1910.252(a)
Fire prevention and protection -
1910.252(a)(1)
Basic precautions. For elaboration of these basic precautions and of the special precautions of paragraph (a)(2) of this section as well as a delineation of the fire protection and prevention responsibilities of welders and cutters, their supervisors (including outside contractors) and those in management on whose property cutting and welding is to be performed, see Standard for Fire Prevention in Use of Cutting and Welding Processes, NFPA Standard 51B, 1962, which is incorporated by reference as specified in § 1910.6. The basic precautions for fire prevention in welding or cutting work are:
1910.252(a)(1)(i)
Fire hazards. If the object to be welded or cut cannot readily be moved, all movable fire hazards in the vicinity shall be taken to a safe place.
1910.252(a)(1)(ii)
Guards. If the object to be welded or cut cannot be moved and if all the fire hazards cannot be removed, then guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards.
1910.252(a)(1)(iii)
Restrictions. If the requirements stated in paragraphs (a)(1)(i) and (a)(1)(ii) of this section cannot be followed then welding and cutting shall not be performed.

1910.252(a)(2)
Special precautions. When the nature of the work to be performed falls within the scope of paragraph (a)(1)(ii) of this section certain additional precautions may be necessary:
1910.252(a)(2)(i)
Combustible material. Wherever there are floor openings or cracks in the flooring that cannot be closed, precautions shall be taken so that no readily combustible materials on the floor below will be exposed to sparks which might drop through the floor. The same precautions shall be observed with regard to cracks or holes in walls, open doorways and open or broken windows.
1910.252(a)(2)(ii)
Fire extinguishers. Suitable fire extinguishing equipment shall be maintained in a state of readiness for instant use. Such equipment may consist of pails of water, buckets of sand, hose or portable extinguishers depending upon the nature and quantity of the combustible material exposed.

1910.252(a)(2)(iii)
Fire watch.
1910.252(a)(2)(iii)(A)
Fire watchers shall be required whenever welding or cutting is performed in locations where other than a minor fire might develop, or any of the following conditions exist:
1910.252(a)(2)(iii)(A)(1)

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Appreciable combustible material, in building construction or contents,
closer than 35 feet (10.7 m) to the point of operation.
1910.252(a)(2)(iii)(A)(2)
Appreciable combustibles are more than 35 feet (10.7 m) away but are easily
ignited by sparks.
1910.252(a)(2)(iii)(A)(3)
Wall or floor openings within a 35-foot (10.7 m) radius expose combustible
material in adjacent areas including concealed spaces in walls or floors.
1910.252(a)(2)(iii)(A)(4)
Combustible materials are adjacent to the opposite side of metal partitions,
walls, ceilings, or roofs and are likely to be ignited by conduction or
radiation.
1910.252(a)(2)(iii)(B)
Fire watchers shall have fire extinguishing equipment readily available and
be trained in its use. They shall be familiar with facilities for sounding
an alarm in the event of a fire. They shall watch for fires in all exposed
areas, try to extinguish them only when obviously within the capacity of the
equipment available, or otherwise sound the alarm. A fire watch shall be
maintained for at least a half hour after completion of welding or cutting
operations to detect and extinguish possible smoldering fires.

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5.0 APPLICABLE CONSENSUS STANDARDS

5.1 National Fire Protection Association NFPA 10

The National Fire Protection Association addresses portable fire extinguishers in NFPA 10 standard. Subsection 6.1.3.1 of the 2026 edition of NFPA 10 requires fire extinguishers to be readily available.

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NFPA 10 Standard for Fire Extinguishers
2026 Edition

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6.1.3.1
Fire extinguishers shall be conspicuously located where they are readily
accessible and immediately available in the event of fire.

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5.2 American National Standards Institute ANSI SAIA A92

The American National Standards Institute (ANSI) addresses the use of mobile elevated work platforms (MEWP) in the ANSI SAIA A92 standards. Section 6.1 of the 2021 edition of ANSI SAIA A92 includes requirements for the identification and control of hazards related to work MEWPs.

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ANSI SAIA A92
2021 Edition

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6.1.1 General
It is the user's responsibility to ensure MEWP risk assessment is performed by qualified personnel consistent with the provisions within section 6.1

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6.1.2.3 Assess the Risks Associated with the Task
The risks associated with the task specific to MEWP shall be identified. These might be associated with the location where the work is to be carried out, the nature of the MEWP or the personnel, materials and equipment to be carried.

6.1.2.4 Identify Control Measures
Once the hazards and risks involved in the task have been identified, the procedures and measures required to control them shall be identified and implemented.

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6.0 CAL/OSHA ANALYSIS

6.1 Existing Title 8 Standards Effectively regulate Fire Prevention but not Fire Response

Although existing Title 8 regulations address fire prevention through requirements related to electrical safety, hot work, fire extinguishers, equipment maintenance and operation, employee training, and other requirements, they generally assume that employees can remove themselves from a hazardous environment when an emergency occurs.

Workers elevated in aerial devices present a unique circumstance because their ability to self-evacuate is often severely restricted due to their location in a small basket elevated many feet above the ground. Movement may be further limited by fall-protection systems, boom position, energized conductors, equipment malfunction, smoke, heat, or loss of controls.

Current regulations do not specifically require employers to evaluate fire-response measures for employees who may become stranded in the air during a fire emergency, nor do they address emergency descent capabilities, aerial rescue procedures, coordination with ground personnel, or other response measures intended to facilitate rapid evacuation from elevated work locations. As a result, while existing standards contain numerous provisions intended to prevent fires from occurring, they do not comprehensively address emergency response for workers who cannot readily escape from an aerial device if a fire or thermal event occurs. For example:

- Under section 6151, fire extinguishers are not required if the employer establishes an emergency action plan and fire prevention plan and determines employees will not use extinguishers. If an extinguisher is required, it must be "readily accessible," but section 6151(c)(1) does not expressly state that a fire extinguisher is required in an aerial basket.
- Lack of Egress and Rescue Protocols: Section 3648 regulates how aerial devices are operated, but it does not provide requirements regarding emergency descent procedures, aerial rescue coordination, or specialized fire-resistant mitigation for workers trapped in the air.

6.2 Review of the OSHA Accident Investigations Submitted by Petitioner

The petitioner compiled numerous historical incidents and OSHA investigations involving elevated fires and burn injuries. These events demonstrate that when hydraulic failures, electrical faults, or environmental fires occur around aerial equipment, the inability to quickly escape or suppress the fire at height frequently escalates equipment failures into catastrophic life-threatening events.

7.0 CONCLUSION

Cal/OSHA recommends that Petition 615 be granted to the extent that the Standards Board staff convene an advisory committee to consider the proposed changes from the Petitioner.

cc: Debra Lee, Cal/OSHA Chief

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June 01, 2026

California Occupational Safety and Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

To the Members of the California Occupational Safety and Health Standards Board:

I am writing to respectfully request that Cal/OSHA and the California Occupational Safety and Health Standards Board review an under-discussed hazard affecting utility workers, electrical contractors, line-clearance workers, tree-care personnel, and other employees who perform work from aerial devices and elevated work platforms: fire occurring at or near the worker's elevated position.

This request is not submitted to promote a specific product, manufacturer, or commercial solution. It is submitted as a safety concern based on field experience, OSHA incident summaries, public news reports, and documented examples of aerial platform fire events, including incidents where workers were burned, trapped, forced to jump, required rescue, or died while attempting to escape fire conditions at elevation.

The central safety issue is simple:

When fire starts where the worker is standing, the emergency changes immediately.

A worker in an elevated bucket or aerial platform cannot always move away from the hazard the way a ground-level worker can. Movement may be restricted by fall protection, limited bucket space, energized infrastructure, boom position, smoke, heat, equipment damage, or loss of controls. In these events, fire suppression access, emergency descent, rescue coordination, and response time may become life-safety factors within seconds.

Background

California Title 8 contains requirements for elevating work platforms and aerial devices, including vehicle-mounted and self-propelled aerial devices used to position personnel, tools, and materials for work at elevation. Existing rules address equipment design, operating instructions, maintenance, platform equipment, guardrails, fall protection, and safe operation.

However, based on the incidents reviewed, aerial-device fire emergencies present a distinct operational problem that may not be fully addressed by existing general aerial device requirements, portable fire extinguisher rules, or emergency action planning requirements.

Current fire-extinguisher and emergency-response rules generally assume that an employee can access suppression equipment within a defined travel distance or evacuate to a safe location. For elevated aerial-device work, those assumptions may not hold true. A worker may be 35, 45, 60, or more feet above the ground, physically separated from suppression equipment, and unable to descend quickly enough to avoid burn injury, smoke exposure, fall risk, or panic-driven escape.

Incident Patterns Identified

A review of OSHA accident summaries and public reports identifies multiple fire-related aerial platform incident patterns, including:

1. Electric arc igniting hydraulic fluid and starting fire in or near the bucket.
2. Workers in aerial buckets catching fire after electrical contact.
3. Hydraulic hose or fluid ignition while the worker is elevated.
4. Bucket truck or aerial lift fires creating escape and rescue emergencies.
5. Elevated workers jumping or falling while attempting to escape fire.
6. Workers requiring rescue from buckets after fire spreads from the truck or boom.
7. Arc-flash events that ignite clothing, PPE, tools, or nearby materials.
8. Welding, torch, combustible liquid, propane, or gas fires involving boom lifts or scissor lifts.
9. Fire extinguishers located on the ground or truck becoming unavailable, empty, delayed, or difficult to access during the emergency.
10. Emergency response delays caused by the worker's elevated position.

One OSHA accident summary specifically describes two power line workers in the bucket of an aerial lift who contacted an overhead line, creating an electrical fault. The resulting arc reportedly ignited hydraulic fluid, and OSHA's summary states that "a fire started in the bucket." One worker later died from burn injuries.

Another OSHA summary describes a line-clearance employee working from a bucket whose clothing caught fire while the power lines arced across his body. After the bucket was cleared from the power lines, a sheriff retrieved a fire extinguisher to put out the fire that had engulfed the employee in the bucket. The fire extinguisher from the truck was reportedly empty, and another extinguisher had to be obtained.

Public news reports also document recent bucket-truck fire events where workers were forced into immediate survival decisions. These include a Tennessee lineman who died after attempting to escape a bucket-truck fire, a Baton Rouge worker who fell from a burning bucket truck, a Carthage, Illinois worker who transferred from one burning bucket to another nearby bucket, and a Pine Bluff, Arkansas incident involving a worker rescued from a burning bucket-truck boom/bucket area.

These examples suggest that aerial-device fire events may be uncommon but severe, and that the hazard deserves formal review.

Why Fire at Elevation Is Operationally Different

A fire emergency at ground level is typically managed through evacuation, suppression, isolation, and emergency response.

A fire emergency in an elevated bucket or platform is different.

The worker may face:

- restricted movement;
- limited escape routes;
- fall protection entanglement or limitations;
- smoke and heat rising into the work area;
- inability to descend due to equipment damage or control failure;
- energized conductors or electrical equipment nearby;
- psychological stress and panic response;
- difficulty communicating with the ground crew;
- delayed access to fire suppression equipment;
- delayed rescue by ground personnel or emergency responders.

In these events, a worker may have only seconds to make a decision. If the worker does not have immediate suppression access, a reliable descent option, or a practiced rescue plan, the incident may quickly become both a fire emergency and a fall/rescue emergency.

Hierarchy of Controls and Last-Line Protection

Administrative and engineering controls should remain the first line of defense against workplace hazards. Employers should prevent fires through proper equipment maintenance, hydraulic inspections, electrical hazard assessment, hot-work controls, battery/tool management, job briefings, and emergency planning.

However, if these controls fail to eliminate the hazard, additional layers of protection may be necessary.

For aerial-device fire events, PPE is often the last line of defense against thermal exposure, arc flash, smoke, and burn injury. PPE is essential, but PPE alone may not provide sufficient protection if a worker is trapped in an elevated bucket while fire grows beneath or around them.

For that reason, Cal/OSHA should consider whether elevated workers performing utility, electrical, tree-care, or line-clearance work should have additional evaluated options such as:

- fire-resistant or arc-rated PPE appropriate to the work hazard;
- emergency descent or controlled lowering procedures;
- aerial rescue planning and practice;
- readily accessible fire suppression positioned for the elevated worker or immediate rescue crew;
- inspection requirements for bucket-truck fire extinguishers;
- job briefing requirements specific to elevated fire emergencies;
- employer evaluation of whether ground-based extinguishers are realistically accessible during elevated work;
- training on what to do if fire starts in, on, or around the bucket, boom, or aerial device.

The purpose is not to require one specific device or product. The purpose is to ensure that employers evaluate whether their aerial workers have realistic protection when fire occurs at the point of exposure.

Response Time and Survivability

Response time is one of the most important variables in an elevated fire emergency.

In a ground-based suppression scenario, the sequence may include:

- ignition;
- worker recognition;
- communication to the crew;
- retrieving a fire extinguisher from the truck or another location;
- positioning for suppression;
- beginning suppression;
- initiating rescue or descent.

This process may take 60 to 120 seconds or more depending on site conditions.

By contrast, if suppression or escape options are immediately accessible and workers are trained to use them, initial action may begin within 5 to 15 seconds after recognition.

The difference may be significant. Earlier action may reduce:

- thermal exposure;
- smoke exposure;
- panic;
- fall risk;
- rescue complexity;
- equipment damage;
- incident escalation;
- the likelihood that a worker must jump or fall to escape.

No responsible safety professional should claim that any one measure will save a specific number of lives. However, it is reasonable to state that reducing response time and improving preparedness may increase the probability of a favorable outcome.

Organizational and Public-Safety Costs

A serious aerial-device fire event may affect far more than the injured worker.

Known and unknown costs may include:

- medical treatment;
- burn care and rehabilitation;
- workers' compensation;
- lost workdays;
- crew downtime;
- emergency response;
- incident investigation;
- Cal/OSHA investigation;
- safety stand-downs;
- corrective-action meetings;
- retraining;
- equipment replacement;

- bucket truck or boom repairs;
- damaged tools and PPE;
- insurance premium increases;
- legal fees;
- court costs;
- settlements or judgments;
- personnel replacement;
- lost productivity;
- lost bids due to higher incident rates or insurance costs;
- reputational damage;
- emotional trauma to coworkers and families.

These costs reinforce the importance of prevention, preparedness, and response-time reduction.

Requested Cal/OSHA Review

I respectfully request that Cal/OSHA and the Standards Board evaluate whether current California requirements adequately address fire emergency preparedness for workers elevated in aerial devices and bucket trucks.

Specifically, I request review of whether guidance, rulemaking, advisory material, or enforcement emphasis should address:

1. Fire emergency planning for aerial devices used in utility, electrical, tree-care, and line-clearance work.
2. Job briefing requirements for elevated fire hazards when hydraulic systems, energized lines, hot work, battery tools, or combustible materials are present.
3. Employer evaluation of whether portable fire extinguishers are accessible within a realistic response window when workers are elevated.
4. Whether ground-mounted extinguishers are adequate when the exposed worker is elevated and physically separated from the extinguisher.
5. Emergency descent, rescue, or controlled-lowering options for elevated workers exposed to fire.
6. PPE considerations for workers exposed to arc flash, thermal hazards, and fire at elevation.
7. Inspection and readiness of fire extinguishers assigned to bucket trucks and aerial devices.
8. Training requirements or guidance for workers and crews responding to bucket, boom, hydraulic, or aerial-device fires.
9. Collection or classification of aerial-device fire incident data to better understand frequency, severity, and contributing factors.

Suggested Non-Prescriptive Safety Language

If Cal/OSHA determines that guidance is appropriate, one possible non-prescriptive concept could be:

Employers who use aerial devices shall evaluate reasonably foreseeable fire hazards associated with elevated work, including hydraulic fluid ignition, electrical arc events, hot work, battery-powered tools, vehicle fires, combustible vegetation, and environmental fire exposure. Where such hazards exist, employers shall ensure employees have effective emergency procedures, appropriate

PPE, rescue planning, and timely access to fire suppression or emergency descent options appropriate to the hazard.

This language is intentionally broad. It does not specify a single product or method. It focuses on employer evaluation, hazard control, response planning, and worker protection.

Closing

California has long been a leader in workplace safety. Aerial-device fire preparedness is an area where additional review could help prevent catastrophic outcomes.

The available incident examples show that fire at elevation can immediately become a combined fire, fall, rescue, and survivability emergency. Workers in elevated buckets may have limited time, limited movement, and limited access to emergency resources. When fire starts at the point of exposure, preparedness before the incident may be the difference between a controlled emergency and a fatal outcome.

I respectfully ask Cal/OSHA and the California Occupational Safety and Health Standards Board to review this issue and consider whether additional guidance, rulemaking, data collection, or industry outreach is warranted.

Thank you for your time and consideration.

Respectfully,

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100 Fire-Related Aerial Platform Incident Report & Research Index

Bucket Trucks, Aerial Lifts, Boom Lifts, Scissor Lifts, Arc-Flash Fires, Hydraulic Ignition, Flash Fire, and Related Elevated Work-Platform Events

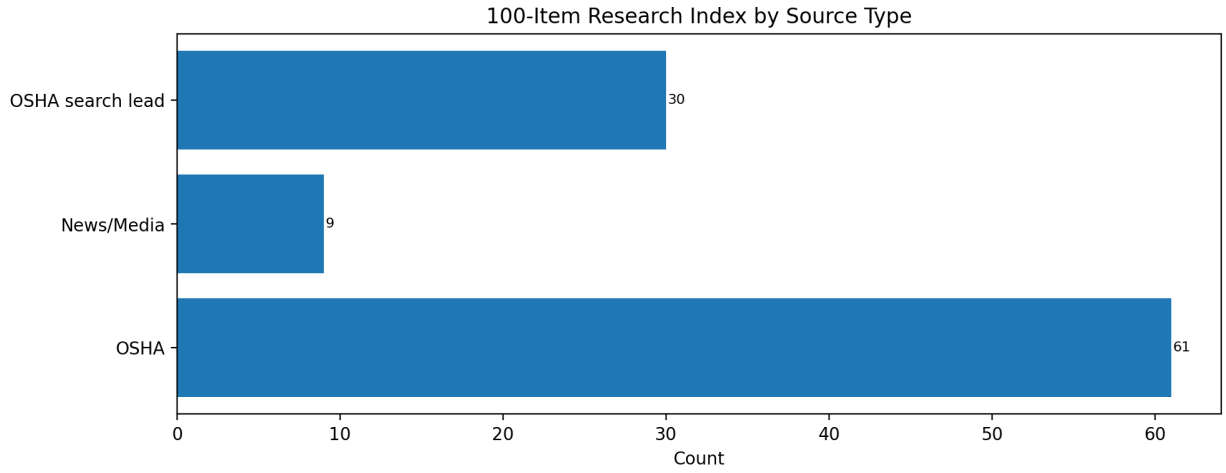
Prepared as research support material for the safety education proposal: Fire at the Point of Exposure.

Executive Scope Note

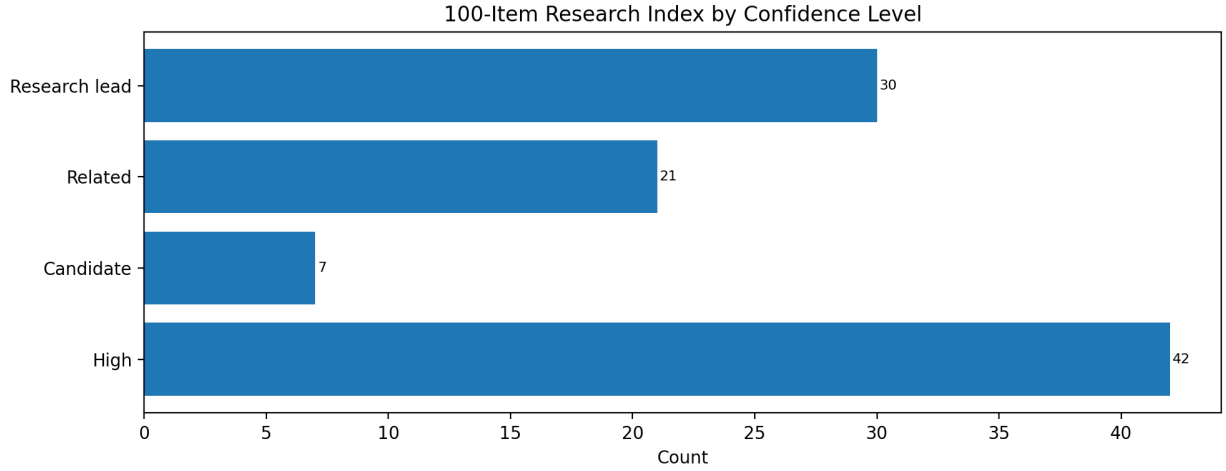
This document is intentionally labeled as an incident report and research index. It does not claim that all 100 entries are confirmed bucket-truck bucket fires. The first portion contains identified OSHA and public-media incidents or strong case examples. The later portion includes structured research leads that should be used to locate additional OSHA/public records and should not be cited as confirmed cases until individually verified.

The defensible conference language is: A review of OSHA accident summaries and public reports identifies numerous fire-related elevated-work incidents, including confirmed bucket fires, workers catching fire while elevated, arc-flash fire/burn events, hydraulic-fluid ignition, welding/torch fires, flash fires, and emergency rescue situations involving elevated platforms.

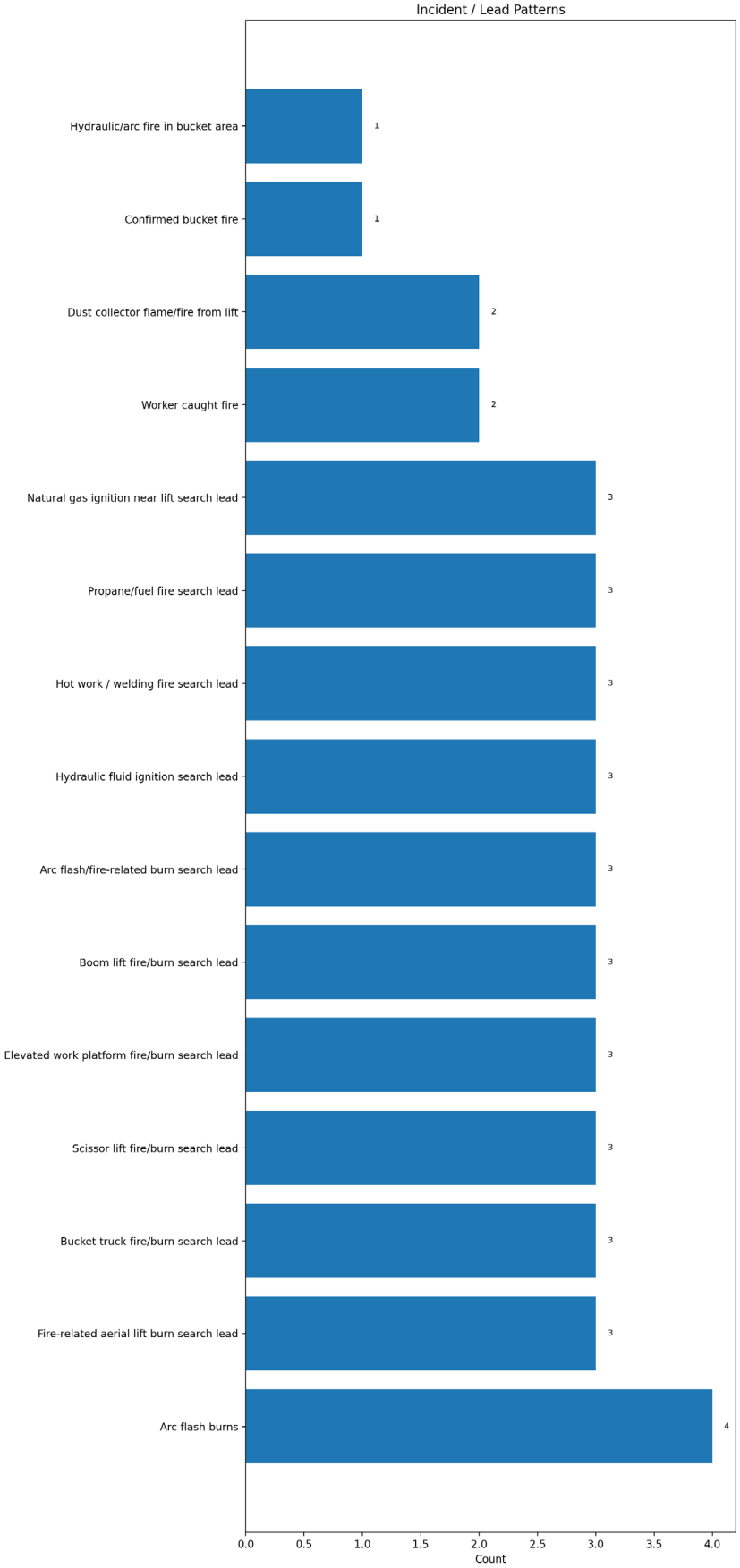
Charts



Source


100-Item Research Index by Confidence Level
Research lead
Related
Candidate
High
30
21
7
42
0
5
10
15
20
25
30
35
40
Count

Confidence


Incident / Lead Patterns
Hydraulic/arc fire in bucket area
1
Confirmed bucket fire
1
Dust collector flame/fire from lift
2
Worker caught fire
2
Natural gas ignition near lift search lead
3
Propane/fuel fire search lead
3
Hot work / welding fire search lead
3
Hydraulic fluid ignition search lead
3
Arc flash/fire-related burn search lead
3
Boom lift fire/burn search lead
3
Elevated work platform fire/burn search lead
3
Scissor lift fire/burn search lead
3
Bucket truck fire/burn search lead
3
Fire-related aerial lift burn search lead
3
Arc flash burns
4
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
Count

Pattern

Confidence Key

High: Direct source language supports fire, flash fire, worker caught fire, or fire-related burn event involving an aerial platform.

Related: Aerial platform or elevated-work incident with fire/burn/arc-flash relevance, but not necessarily a bucket-level fire.

Candidate: Potentially relevant incident requiring fuller review before using as a primary case study.

Research lead: Search pathway or lead, not a verified incident entry until a specific record is opened and reviewed.

100 Fire-Related Aerial Platform Incidents / Research Index

#	Source	ID / Case	Year	Platform	Pattern	Outcome	Summary	Confidence
1	OSHA	201761434	2001	Bucket/aerial lift	Confirmed bucket fire	Fatality + hospitalized injury	Electric arc ignited hydraulic fluid; fire started in bucket while two power line workers were elevated.	High
2	OSHA	200200012	1995	Bucket truck	Hydraulic/arc fire in bucket area	Fatality	Arcing during line restoration; hydraulic hose burned through and fluid sprayed/ignited with residual fire in bucket.	High
3	OSHA	200921377	2004	Bucket truck	Worker engulfed/caught fire	Fatality	Employee contacted power lines; clothing on fire; fire engulfed worker in bucket; multiple extinguishers required.	High
4	OSHA	200090553	2006	Bucket truck	Arc flash / worker caught fire	Fatality	Splice service technician working from bucket truck; arc flash occurred and employee caught fire, sustaining severe burns.	High
5	OSHA	114328.015	2019	Non-insulating bucket truck	Worker caught fire	Fatality	Employee working from non-insulating bucket truck contacted high-voltage line and caught fire.	High
6	OSHA	200515591	2012	Boom-supported aerial lift	Worker caught fire / fall	Fatality	Technician in boom lift contacted/approached 69 kV line, caught fire, exited basket, and fell about 39 feet.	High
7	OSHA	897967	2006	Aerial lift bucket truck	Arc flash / body fire	Fatality	Worker in bucket truck using hydraulic pruner; arc caused clothing/flesh to burn; coworkers lowered bucket and extinguished fire with water.	High
8	OSHA	121353.015	2019	Terex TC-55 bucket truck	Arc flash started fire	Hospitalized injury	Arc flash during power-transmission repairs was strong enough to start a fire and caused employee to fall from bucket.	High
9	OSHA	737783	1990	Aerial lift bucket	Fire trapped worker	Fatality/serious injury context	Phase conductor faulted and caused fire; employee was trapped by fire and jumped about 30 feet from bucket.	High
10	OSHA	51446.015	2013	Portable aerial lift	Fire started after electrical contact	Fatality	Gasoline-powered pole saw and aerial lift became energized; a fire started and employee later died.	High
11	OSHA	800284	1993	High Ranger aerial lift bucket	Hydraulic oil ignition	Injury/fall context	Improper hose on hydraulic tool; hydraulic oil ignited and line worker jumped from bucket to avoid fire.	High
12	OSHA	202288379	1998	Aerial lift	Aerial lift fire/burn candidate	Candidate	OSHA search result title indicates employee in aerial lift burned in fire; full report should be verified before publication.	Candidate
13	OSHA	200923100	2013	Elevated aerial lift	Flash fire / explosion	Two fatalities	Flash fire/possible explosion caused two employees to be thrown from or jump from elevated aerial lift; serious burns and fatalities.	High
14	OSHA	128287.015	2020	Bucket truck	Arc flash / fire-smoke keywords	Hospitalized injury	Employee elevated in bucket truck installing jumper; arc flash caused second-degree burns; OSHA keywords include fire and smoke.	High
15	OSHA	200376465	2008	Altec bucket truck	Electrical burn / bucket truck	Hospitalized injury	Employee approximately 45 feet high in Altec bucket on Ford F750 material-handling bucket truck; treated for burns.	Related
16	OSHA	89934.015	2016	Truck-mounted articulating aerial lift	Worker caught fire	Fatality	Employee in non-insulated truck-mounted aerial lift caught fire after overhead power-line contact; driver lowered lift and used extinguisher.	High

17	OSHA	102557.015	2018	Scissor lift	Flash fire / clothing ignited	Hospitalized injury	Employee on scissor lift investigated smoke from grinder; fire flashed, clothing caught fire, and employee jumped from lift.	High
18	OSHA	200012540	2007	Aerial lift + scissor lift fire watch	Welding fire	Fatality	Foreman welding from aerial lift; sparks ignited magnesium shavings, causing violent fire that consumed employee.	High
19	OSHA	202686952	2013	Genie scissor lift	Propane fire to platform	Hospitalized injury	Torch work struck propane tank; escaped gas ignited and fire billowed toward scissor-lift platform; controls affected, employee jumped.	High
20	OSHA	200612158	2006	Aerial boom lift	Engine backfire/flame	Hospitalized injury	Employee doing maintenance on gasoline engine of aerial boom lift; engine backfired and flames ignited gasoline on clothing/hands.	Related
21	OSHA	201149481	2007	JLG boom lift	LPG flash fire	Injury	Employee fueling JLG boom lift from LPG tank; flash fire knocked him to ground.	Related
22	OSHA	112903.015	2019	Aerial lift	Power-line burn	Hospitalized injury	Employee using aerial lift to lift cable line above tree raised lift into overhead power line and sustained severe burns.	Related
23	OSHA	126293.015	2020	Bucket truck	Arc flash burns	Hospitalized injury	Employee connecting ground wire from bucket truck; arc flash occurred near energized 7.2 kV line; burns to hands/face.	High
24	OSHA	129366.015	2020	Bucket truck	Flash/electrical burn	Hospitalized injury	Employee in bucket truck clearing downed transmission conductor; flash occurred and caused electrical burn to abdomen.	Related
25	OSHA	148929.015	2022	Bucket truck / lift bucket nearby	Arc flash burns	Hospitalized injury	Coworker used bucket truck for fuses; employee later used wrong meter on high-voltage transformer causing arc flash and third-degree burns.	Related
26	OSHA	129942.015	2020	Aerial lift	Arc flash burns	Two hospitalized injuries	Two employees working from aerial lift contacted overhead 69 kV line; both suffered burns from arc flash/electric shock.	High
27	OSHA	142344.015	2021	Bucket truck/boom	Electrical shock and burns	Hospitalized injury	Energized transmission line contacted boom; current traveled into bucket truck; foreman received shock and third-degree burns.	Related
28	OSHA	95174.015	2017	Bucket truck	Fire-related upper-body burns	Fatality	Employee in uninsulated bucket/boom contact with power line; electrocution with burns to upper body from fire.	Related
29	OSHA	14257828	1987	Aerial lift bucket	Arc burns	Fatality	Employee in aerial lift bucket caught in arc between phase line and guy; numerous burns across body.	Related
30	OSHA	99888.015	2017	Insulated bucket truck	Electrical burns	Hospitalized injury	Employee used insulated bucket truck and was treated for second-degree burns to face/ear after electrical event.	Related
31	OSHA	200000677	1990	Aerial lift bucket	Hydraulic lines burst causing bucket fire	Fatality/serious context	After energized contact, ground worker used lower controls; hydraulic lines burst causing fire at bucket.	High
32	OSHA	200102218	2005	Aerial lift	Explosion/fire burns	Fatality	Employee removing energized 480V shut-off box from aerial lift; explosion blew him from lift; burns over 100%.	High
33	OSHA	202082426	2013	Scissor lift	Arc flash burns	Hospitalized injury	Electrician in scissor lift installing fuses; phase-to-phase short created arc flash and burn injuries.	High

34	OSHA	170809438	1995	Scissor lift	Combustible liquid fire	Burn + fracture injuries	Employees on scissor lift doing pipe fitting; combustible liquid ignited; both jumped to floor and one was burned.	High
35	OSHA	200541043	2004	Scissor lift	Electrical explosions/flames	Fatality + severe burns	Two electricians on scissor lift; temporary wiring became energized; explosions produced ball of flames and severe burns.	High
36	OSHA	127577.015	2020	Aerial lift	Arc flash while lowering	Hospitalized injury	Employee welding from aerial lift; arc flash from nearby 69 kV lines struck platform and employee.	High
37	OSHA	100540.015	2017	JLG aerial lift basket	Natural gas ignition/fire	Two hospitalized injuries	Employees in JLG lift basket welding; natural gas released near lift basket and ignited; both burned.	High
38	OSHA	138557.015	2021	JLG scissor lift	Arc flash ignited clothing/PPE	Hospitalized injury	Employee on JLG scissor lift drilled into energized bus bar; arc flash ignited clothing/PPE; serious burns.	High
39	OSHA	172460.015	2024	Scissor lift	Arc flash/electrocution burn	Fatality	Employee used scissor lift to access transformer; arc flash occurred during teardown and caused burn/electrical fatality.	High
40	OSHA	200120087	1990	Scissor lift	Electric arc and ensuing fire	Three hospitalized injuries	Two employees on scissor lift installing bus-plug; clamps faulted across phases, causing electric arc and ensuing fire.	High
41	OSHA	156354.015	2023	Elevated work platform	Hydrocarbon fire / trapped elevated worker	Fatality + burns	Hydrocarbon release and fire; one employee trapped on elevated structure; others sustained burns/smoke inhalation.	Related
42	OSHA	89705.015	2016	Elevated work platform	Combustible liquid explosion/fire	Two fatalities + burn injury	Asphalt/combustible liquid/fire/explosion case with elevated work platform keywords; verify full facts before utility comparison.	Candidate
43	News/Media	WAFB 2026 Baton Rouge	2026	Bucket truck	Bucket caught fire / worker fell	Serious injury	WAFB reported one person fell from a bucket truck that caught fire; fire department said mechanical failure caused fire in the bucket.	High
44	News/Media	WGEM 2026 Carthage	2026	Utility bucket truck	Engulfed bucket / bucket-to-bucket transfer	Near miss / no serious injury reported	WGEM reported a lineman jumped from a burning/engulfed bucket into another nearby bucket after a utility truck caught fire.	High
45	News/Media	Pine Bluff Commercial 2022	2022	Bucket truck	Bucket/boom fire	Rescue / injuries unknown	Pine Bluff Commercial reported a man rescued from a utility-truck bucket; witness described smoke from bucket and burning fluid from arm.	High
46	News/Media	Duck River Electric / TN 2018	2018	Bucket truck	Bucket-truck fire escape attempt	Fatality	Duck River Electric and Tennessee news reported lineman Ray Dean Batey died after attempting to escape a bucket-truck fire.	High
47	News/Media	TCIA Arlington Heights 2022	2022	Aerial-lift tree truck	Truck fire with worker aloft	Injury	TCIA reported worker was aloft in aerial-lift bucket when truck caught fire; worker jumped and was injured.	High
48	News/Media	TCIA Delray Beach 2022	2022	Bucket truck	Truck fire moving toward bucket	Rescue	TCIA reported firefighters rescued a worker stuck in a bucket after his tree-trimming truck caught fire and fire moved toward the bucket.	High
49	News/Media	KBUR Burlington 2026	2026	Utility truck bucket	Bucket reported on fire	Non-injury / property fire	KBUR reported both a sign and the bucket of a contractor-owned utility truck were on fire at Catfish Bend Casino.	High
50	News/Media	CBS12 Delray Beach 2025	2025	Bucket truck	Vehicle/equipment fire	No elevated worker exposure reported	CBS12 reported a bucket truck caught fire on Florida Turnpike; useful fleet/equipment fire example, not bucket-level exposure.	Related

51	OSHA	200632511	2012	Aerial lift	Dust collector flame/fire from lift	Fatality + hospitalizations	Employees worked in aerial lift to investigate smoke in dust collector; long flame erupted, burning two employees and causing fatal complications.	High
52	OSHA	896811	1999	Crane-suspended personnel cage	Boiler/silo fire	Two fatalities	Employees worked from manbasket/personnel cage disassembling boiler silo; fire ignited and both suffered fatal burns.	Related
53	OSHA	176017358	1996	Elevated work platform	Flammable vapor fire/explosion	Two hospitalized injuries	OSHA keywords include flammable vapors, fire, welding, explosion, creosote and elevated work platform; case supports hot-work/fire exposure at elevation.	Candidate
54	OSHA	976217	1992	Elevated platform	Combustible dust flash fire	Fatality	Employee on 10-foot platform dumping powdered magnesium; static spark ignited suspension and flash fire caused fatal burns.	Related
55	OSHA	201360534	1998	Bucket truck	Bucket-truck engine fireball	Fatality	Employee attempted to start bucket truck by pouring gasoline into carburetor; backfire caused fireball and fatal burns.	Related
56	OSHA	362363343	2003	International bucket truck	Phase-to-neutral flash burns	Hospitalized injury	Lineman in International bucket truck with Versalift bucket assembly sustained second/third-degree burns after phase-to-neutral flash.	High
57	OSHA	201922887	2003	Bucket truck	Electrical burns near bucket truck	Fatality + burns	Employee in non-insulated bucket truck was electrocuted while installing banner; ground employee sustained electrical burns.	Related
58	OSHA	202476651	2010	Scissor lift platform	Electrical shock/burn at panel	Hospitalized injury	Employee elevated on scissor lift near 1,600 amp/480 V panel; conduit/fish tape energized lift and caused shock/burn injuries.	Related
59	OSHA	170747331	1995	Aerial bucket	Fire scene aerial-bucket incident	Two hospitalized injuries	Firefighters in aerial bucket during building fire response; collapse caused injuries. Included only as fire-scene aerial-bucket context.	Candidate
60	OSHA	124114.015	2019	Boom lift truck on site	Power-line burn with boom-lift context	Fatality/related	Tree maintenance with boom lift truck operating on site; power-line contact and burn/electrical event; verify platform use before relying on it.	Candidate
61	OSHA	1001411	1995	Scissor lift work platform	Chemical burn / gas release	Hospitalized injuries	Employees on scissor lift work platform near ammonia/gas leak; chemical burn incident; not a fire but elevated emergency context.	Candidate
62	OSHA	837690	1994	Elevated internal platform/trays	Flammable gas flash/fire	Multiple fatalities	Flammable gas flashed inside vessel; workers on elevated trays/platforms suffered burns and falls. Broader elevated-platform fire case.	Related
63	OSHA	114853.015	2018	Extension ladder/elevated work platform keyword	Gasoline equipment fire after fall	Hospitalized injury	Employee fell while using gasoline pressure washer; equipment caught fire and caused severe burns; elevated work platform keyword but not aerial lift.	Candidate
64	OSHA	200210466	2001	Elevated refinery platform context	Hydrocarbon fireball	Multiple hospitalized burns	Pressure vessel failure released hydrocarbons that ignited explosively; employees on/around elevated refinery unit suffered burns.	Related
65	OSHA	201381167	1998	Bucket/elevated power-line work	Electrical burn/fire-resistant clothing context	Hospitalized burn	Utility pole/elevated work; worker wearing FR clothing contacted primary line and was transported to burn center.	Related

66	OSHA	200632511-2	2012	Aerial lift basket	Dust collector flame/fire from lift	Fatal burn hospitalization	Same multi-employee OSHA case; second employee was unable to get off basket and was below flame before rescue/lowering.	High
67	OSHA	200632511-3	2012	Aerial lift operation support	Fire extinguisher support / smoke inhalation	Overnight observation	Same OSHA case; ground employee handed extinguishers and had smoke inhalation exposure, showing suppression logistics problem.	Related
68	OSHA	138557.015-2	2021	JLG scissor lift	PPE fire / delayed lowering	Hospitalized injury	Same OSHA case shows coworkers unable to lower lift externally because emergency stop was activated; relevant to emergency descent planning.	High
69	OSHA	100540.015-2	2017	JLG aerial lift basket	Natural gas fire at basket	Hospitalized injury	Same incident included two workers in lift basket burned by ignited natural gas release below the basket.	High
70	News/Media	NewsChannel 5 TN 2018	2018	Bucket truck	Lift bucket burst into flames	Fatality	NewsChannel 5 reported lift bucket suddenly burst into flames and worker jumped to avoid being burned.	High
71	OSHA search lead	Lead-71	TBD	Aerial lift	Fire-related aerial lift burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
72	OSHA search lead	Lead-72	TBD	Bucket truck	Bucket truck fire/burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
73	OSHA search lead	Lead-73	TBD	Scissor lift	Scissor lift fire/burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
74	OSHA search lead	Lead-74	TBD	Elevated work platform	Elevated work platform fire/burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
75	OSHA search lead	Lead-75	TBD	Boom lift	Boom lift fire/burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
76	OSHA search lead	Lead-76	TBD	Aerial lift/bucket	Arc flash/fire-related burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
77	OSHA search lead	Lead-77	TBD	Aerial lift/bucket	Hydraulic fluid ignition search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
78	OSHA search lead	Lead-78	TBD	Aerial lift/scissor lift	Hot work / welding fire search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead

79	OSHA search lead	Lead-79	TBD	Scissor lift	Propane/fuel fire search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
80	OSHA search lead	Lead-80	TBD	Aerial lift	Natural gas ignition near lift search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
81	OSHA search lead	Lead-81	TBD	Aerial lift	Fire-related aerial lift burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
82	OSHA search lead	Lead-82	TBD	Bucket truck	Bucket truck fire/burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
83	OSHA search lead	Lead-83	TBD	Scissor lift	Scissor lift fire/burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
84	OSHA search lead	Lead-84	TBD	Elevated work platform	Elevated work platform fire/burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
85	OSHA search lead	Lead-85	TBD	Boom lift	Boom lift fire/burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
86	OSHA search lead	Lead-86	TBD	Aerial lift/bucket	Arc flash/fire-related burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
87	OSHA search lead	Lead-87	TBD	Aerial lift/bucket	Hydraulic fluid ignition search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
88	OSHA search lead	Lead-88	TBD	Aerial lift/scissor lift	Hot work / welding fire search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
89	OSHA search lead	Lead-89	TBD	Scissor lift	Propane/fuel fire search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
90	OSHA search lead	Lead-90	TBD	Aerial lift	Natural gas ignition near lift search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead

91	OSHA search lead	Lead-91	TBD	Aerial lift	Fire-related aerial lift burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
92	OSHA search lead	Lead-92	TBD	Bucket truck	Bucket truck fire/burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
93	OSHA search lead	Lead-93	TBD	Scissor lift	Scissor lift fire/burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
94	OSHA search lead	Lead-94	TBD	Elevated work platform	Elevated work platform fire/burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
95	OSHA search lead	Lead-95	TBD	Boom lift	Boom lift fire/burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
96	OSHA search lead	Lead-96	TBD	Aerial lift/bucket	Arc flash/fire-related burn search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
97	OSHA search lead	Lead-97	TBD	Aerial lift/bucket	Hydraulic fluid ignition search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
98	OSHA search lead	Lead-98	TBD	Aerial lift/scissor lift	Hot work / welding fire search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
99	OSHA search lead	Lead-99	TBD	Scissor lift	Propane/fuel fire search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead
100	OSHA search lead	Lead-100	TBD	Aerial lift	Natural gas ignition near lift search lead	Verification required	Research lead for locating additional fire-related aerial platform incidents. Use as a search pathway; do not cite as confirmed until a specific accident summary is opened and reviewed.	Research lead

How to Use This Report

Use entries marked High as case examples. Use Related entries for background hazard discussion. Use Candidate and Research Lead entries only as follow-up research tasks or placeholders for further verification. This prevents overstatement when presenting to safety professionals.

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Occupational Safety and Health Standards Board

Public and Business Meeting

Petition 616

Prepared by the Department of Industrial Relations
Available on the DIR web page: Standards Board (OSHSB) 2026 Meeting Schedule

STATE OF CALIFORNIA
DEPARTMENT OF INDUSTRIAL RELATIONS
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
2520 Venture Oaks Way, Suite 350
Sacramento, California 95833
(916) 274-5721

In the Matter of a Petition by:	)	
	)	
Elevated Insight & Engineering Ltd.	)	
	)	
	)	**PETITION FILE NO. 616**
Applicant.	)	

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION.

OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD

JOSEPH M. ALIOTO JR., Chairman

DAVE HARRISON, Member

CASSIE HILASKI, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

JOSHUA LEPPER, Member

DEREK URWIN, Member

By: _____
Millicent Barajas, Executive Officer

DATE: November 19, 2026
Attachments

OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD
2520 Venture Oaks Way, Suite 350
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PROPOSED PETITION DECISION OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD (PETITION FILE NO. 616)

I. INTRODUCTION

On June 29, 2026, the Occupational Safety and Health standards Board (Board or OSHSB) received a petition from Greg Small (Petitioner), founder of Outdoor Power Equipment Institute, Inc. The Petitioner requests the Board to consider amending California Code of Regulations title 8[1] to require all at height workers to wear helmets meeting the ANSI Z89.1-2014 Type II requirements.

II. SUMMARY

The Petitioner identifies their experience as a Fall Protection Qualified Person Instructor, serving as an expert witness, and a member of ANSI Z359. In their petition, the Petitioner details incidents of workers sustaining serious injuries or fatalities. The Petitioner pointed out had the worker wore a "hardhat" that is rated for side and top impacts, secured with a harness to hold the hardhat on their head, the severity of the injuries may have been mitigated.

Examples of falls at height workers experience include workers in the construction industry that fall from a scaffold eight feet off the ground. In this instance, the first thing that happens is the construction hardhat falls off the head. At this height a worker may be able to land horizontally, chest down, distributing the impact into their legs, hips and may have enough arm and neck strength to hold their head from hitting the ground, sustaining only minor injuries. However, at a greater height, if the head had struck something on the way down, or if the body had become inverted so the head was the first part of the body to contact the ground, more serious injuries could result. Another example includes workers who risk head injury when using a fall arrest system. The Petitioner states prior to full engagement of the fall arrest system is when a worker has the greatest risk of head injury. The Petitioner states during and slightly beyond the free fall phase of the fall even, when a worker is tumbling, the head can easily strike objects even if the fall is arrested. In both examples, the head has potential for injury while falling.

[1] All references are to title 8 unless otherwise noted.

The Petitioner additionally states that falls from height continue to be the leading cause of death in construction and cites industry experience, incident examples, and statistical data to support their request that the Board consider requiring ASNI Z89.1-2014 Type II helmets for all at-height workers. The petitioner contends that improved head protection has the potential to "significantly reduce fatalities and life-changing injuries" at a "relatively low cost" and that these changes could be put into the walking-working surfaces regulations, "where head protection [is] perhaps needed the most."

The Petitioner believes the head is one of the most vulnerable parts of the human body as “brain injuries do not heal as readily as injuries to other parts of our bodies. Unlike bone, muscle and tendons (which can often completely recover from serious cuts, breaks, tears and punctures), brain tissue does not regenerate. At best, other parts of the brain attempt to partially take over functions lost by the injured part of the brain, and are much less effective than the injured brain had been before the injury.”

Based on investigation of all incidents, the Petitioner found “the vast majority of fatalities and serious injuries involved the head striking something, which aligns with the Australian statistics.” The Petitioner also believes the difference between UK fatalities from falls (20% of those recorded in the US per person-hours worked), is because US workers wear construction hardhats instead of helmets, which provide less head protection.

Because the federal regulations do not cover this area and California does not have a specific regulation regarding hard hats, Petitioner brings forth this Petition.

III. RELEVANT STANDARDS

California Standards

Section 3381. Head Protection

(a) Employees working in locations where there is a risk of receiving head injuries from flying or falling objects and/or electric shock and burns shall wear approved head protection in accordance with this section.

(b) When head protection is required, the employer shall provide each employee with head protection that meets the criteria in one of the following standards, which are hereby incorporated by reference:

(1) American National Standards Institute (ANSI)/International Safety Equipment Association (ISEA) Z89.1-2009, “American National Standard for Industrial Head Protection;”

(2) ANSI Z89.1-2003, “American National Standard for Industrial Head Protection;” or

(3) ANSI Z89.1-1997, “American National Standard for Industrial Head Protection.”

(c)(1) The employer shall ensure that the appropriate impact type helmet is selected and used.

Note: Protective helmets are described by impact type and electrical class. All protective helmets required by subsection (b) meet either Type I or Type II impact requirements. Type I helmets are intended to reduce the force of impact resulting from a blow only to the top of the head. Type II helmets are intended to reduce the force of impact resulting from a blow to the top or sides of the head.

(2) The employer shall ensure that the appropriate electrical class of ANSI designated helmet is selected and used in accordance with the following:

(A) When there is no risk of head injury from contact with electrical conductors, and protective helmets are only required to reduce the danger of injury from flying or falling objects, protective helmets shall be ANSI-Z89.1 designated Class C, E, or G.

(B) When there is a risk of head injury from contact with conductors less than 600 volts, protective helmets shall be ANSI-Z89.1 designated Class E or G.

(C) When there is a risk of head injury from contact with conductors greater than 600 volts, protective helmets shall be ANSI-Z89.1 designated Class E.

(3) The employer shall ensure that the head protection provided for each employee exposed to high-voltage electric shock and burns also meets the specifications contained in Section 9.7 "Electrical Insulation" of any of the consensus standards identified in subsection (b) of this section.

(d) Each approved protective helmet required by subsection (b) shall bear the permanent markings required by the ANSI standard under which it was approved. At a minimum, the marking shall identify the manufacturer, ANSI designated standard number and date, and ANSI designated class and impact type of helmet.
(e) Where there is a risk of injury from hair entanglements in moving parts of machinery, combustibles or toxic contaminants, employees shall confine their hair to eliminate the hazard.

Consensus Standards

ANSI Z89.1-2014

7.2.3 Chin Strap
Chin straps shall be made of material not less than 12.7 mm (0.50 in.) in width.
Type II helmets *which are provided with chin straps* shall be tested for retention in accordance with Section 10.6.

For each helmet tested, the chin strap shall remain attached to the helmet. The residual elongation of the strap shall not exceed 25 mm (1.0 in.).

ANSI Z89.1-2026

7.3.5. Additional Protection (“+” Mark)
7.3.5.1. Chin Strap Retention (Type I+, Type II+):
Helmets marked "+" for additional protection shall be provided with a chin strap by the manufacturer, which shall be installed and utilized according to the manufacturer's instructions in order to meet the "+" requirement.
Helmets marked “+” for additional protection shall be tested in accordance with Section 10.6. 12

For each helmet tested, the chin strap shall remain attached to the helmet. The residual elongation of the strap shall not exceed 25 mm (1.0 in.). Chin straps shall be made of material not less than 12.7 mm (0.50 in.) in width.

7.3.5.2 Retention System Effectiveness (Roll Off) (Type I+, Type II+)
Helmets marked “+” for additional protection shall be tested in accordance with Section 10.10. The helmet shall not come off the headform completely and shall maintain some point of contact above the basic plane of the headform for a minimum of 5 seconds.

7.3.5.3 Off-Center Force Transmission

European Standards

BS EN 397 and 13087 are British and European Standards for industrial safety helmets. BS EN 397 sets mandatory performance and design requirements for helmets, while BS EN 13087 provides a series of test methods used in a laboratory to measure those performance criteria.

> BS EN 397 – Industrial Protective Helmets – specifies minimum physical criteria for safety helmets such as shock absorption, penetration resistance, flame resistance, and retention system (chin strap) effectiveness.
>
> BS EN 13087, Protective Helmets—Test Methods, is a ten-part series specifying test methods for industrial protective helmets. The parts of this standard relevant to this petition are the following:
>
> - Part 2: Test methods for shock absorption
> - Part 3: Test methods for resistance to penetration
> - Part 4: Test methods for retention system effectiveness
> - Part 5: Test methods for retention system strength

BS EN 397 and BS EN 13087 do not include requirements or test methods for protection from rotational motion on the head and brain caused by impacts.

BS EN 17950:2024, titled “Protective helmets - Test methods - Shock absorption including measuring rotational kinematics,” includes test methods to measure translational (linear) and rotational forces from helmet impacts. The 2024 edition of BS

EN 17950 describes helmet test protocols for shock absorption including measuring rotational kinematics.

IV. CAL/OSHA'S EVALUATION

In their evaluation, Cal/OSHA cited an article in The American Journal of Industrial Medicine that reported construction workers are at higher risk for traumatic brain injuries (TBI) because they can be struck by falling and flying objects or fall from elevation within a dynamic work environment. Additionally, falls from roofs, ladders, and scaffolds are major causes of TBIs.[2]

Cal/OSHA next analyzed the differences between the applicable codes and gaps that remain in providing the highest head injury protection possible. Their evaluation noted section 3381 of the General Industry Safety Orders addresses head protection from the hazard of flying or falling objects and/or electric shock and burns but it does not specifically address protection from head injuries caused by falls.

Subsection 3381(b) requires head protection to meet the requirements of either the 1997, 2003, or 2009 edition of the ANSI Z89.1 Head Protection standard. Subsection 3381(c)(1) requires that the appropriate impact type helmet is selected and used; and contains a non-enforceable note describing Type I and Type II helmets. The regulation has not been updated to include the 2014 or the 2026 versions of ANSI Z89.1.

With respect to the consensus standards, Cal/OSHA correctly points out that the Petitioner referenced the 2014 edition of ANZI Z89.1 standard which is not the most up to date standard. At the time of Petitioner's request, the 2026 ANZI Z89.1 standards had yet to be published. Under the older standard, chin straps are not required as some type II helmets provide a strap and others do not.

The helmet type is the part of the ANSI Z89.1 standard relevant to this petition (the petitioner requests Type II helmets with chin straps for workers exposed to falls). The types are:

- Type I helmets: designed to reduce penetration and force from impacts to the top of the head; they are not tested for protection to the sides, back, or front of the head.

- Type II helmets: designed to reduce penetration and force from impacts to both the top and lateral areas (front, back, and sides) of the head.

The Type II designation also includes additional testing requirements for chin strap retention if a chin strap retention system is provided with the helmet. However, chin straps are optional and **not** required on Type II helmets.

---

[2] Konda S, Al-Tarawneh IS, Reichard AA, Tiesman HM, Wurzelbacher SJ, Pinkerton LE, Meyers AR, Hendricks SA, Tseng CY, Lampl MP, Robins DC. Workers' compensation claims for traumatic brain injuries among private employers-Ohio, 2001-2011. Am J Ind Med. 2020 Feb;63(2):156-169. pubmed.ncbi.nlm.nih.gov/31742763/

According to Cal/OSHA, laboratory testing from Virginia Tech estimated that Type II helmets reduce concussion risk by 32.7% and skull fracture risk by 57.5% compared with the Type I helmets tested. However, there is variability among the Type II helmets; the two best Type II helmets had 28.7% and 33.2% lower concussion risk than the two worst-performing Type II helmets. They have not yet tested Type II+ or Type I+ helmets.

Although superior to Type I, Cal/OSHA considers the Type II helmet designation alone as insufficient because the chin strap retention system is optional.

Cal/OSHA believes within the Type II designation, the new "+" designation in the 2026 standard is important because head protection is ineffective if a worker falls and the helmet does not stay on their head. Both Type I+ and Type II+ helmets must include a chin strap retention system and meet standardized test requirements designed to evaluate the strap and the helmet's ability to remain properly positioned after an impact. In addition to the mandatory chin strap retention system requirements, Type I+ helmets must pass off-center force-transmission testing at the front, rear, and side and cannot transmit more than 10 kN of force. However, Type I+ helmets are not tested to the Type II lateral impact-energy attenuation and off-center penetration criteria.

Type II+ helmets combine the existing Type II impact-energy attenuation and off-center penetration requirements with the new "+" retention requirements. As a result, Type II+ helmets provide protection from top and lateral impacts while incorporating requirements to improve helmet retention during falls and other incidents involving worker movement.

Based on 1) the lower concussion and skull fracture risk estimated for the Type II helmets compared to the Type I helmet in the Virginia Tech testing, 2) the need for a mandatory helmet retention system, and 3) the enhanced lateral impact and penetration protection of Type II+ helmets compared to Type I+ helmets, Cal/OSHA considers Type II+ helmets meeting ANSI Z89.1-2026 to be the minimum level of head protection that should be required for employees exposed to falls from height.

According to Cal/OSHA, no helmet types in ANSI Z89.1-2026 or earlier versions include test methods for protection from rotational motion on the head and brain caused by impacts.

Thus, Cal/OSHA proposes changes to at height worker protections that include system testing to include evaluation of rotational kinematics associated with oblique impacts. The British and European standard BS EN 17950:2024 establishes a test method specifically designed to measure both translational and rotational kinematics during helmet impacts. Similarly, the Virginia Tech Helmet Lab construction helmet rating system evaluates helmet performance using oblique fall-impact scenarios and

corporates both linear and rotational head acceleration measurements when estimating concussion risk[3].

Cal/OSHA asserts because falls from height commonly involve oblique impacts capable of generating rotational motion of the head, consideration should be given to whether employees exposed to fall hazards would benefit from head protection evaluated for both translational and rotational impact performance.

Cal/OSHA recommends that the requirement for improved head protection be included in title 8 section 3381 with references in the Walking Working Surfaces (WWS) regulations as well as other applicable regulations where employees working at height could be exposed to head injuries from fall hazards.

V. BOARD STAFF'S EVALUATION

Board staff similarly agreed with Cal/OSHA that type II helmets are far superior to type I helmets.

The Board staff evaluation compared the two types of approved impact helmets per ANSI Z89.1-2014 - Type I and Type II impact helmets with three different Classes. For example, one may purchase a Type II, Class E helmet.

- Type I helmets are designed to reduce the impact force from a blow to the top of the head.
- Type II helmets are designed to reduce impact force from a blow to the top or sides of the head.
- Class G (General) intended to reduce the danger of contact with low voltage conductors. Test samples shall be proof tested at 2200 volts (phase to ground)
- Class E (Electrical) Class E helmets are intended to reduce the danger of contact with higher voltage conductors. Test samples shall be proof tested at 20,000 volts (phase to ground).
- Class C (Conductive) are not intended to provide protection against contact with electrical hazard.

Type II helmets are required to meet additional performance requirements by passing the ANSI prescribed test methods.

- Impact Energy Attenuation. Type II helmets include a liner (foam) that is intended to absorb impact force, therefore lessening the amount of impact energy received by the head. Impact Energy Attenuation test is in section 10.4 of the ANSI standard.

[3] Virginia Tech Helmet Lab. (2025). *Construction Helmet Ratings*. Virginia Polytechnic Institute and State University. Accessed on October 24, 2026. https://www.helmet.beam.vt.edu/construction-helmet-ratings.html

- Off-Center Penetration. The impact testing on the headform is performed in various positions to demonstrate protection against impact.: front, side, rear and anywhere on the shell above the Dynamic Test Line (DTL) - drawing in ANSI standard. Impact penetration test is in section 10.5 of the ANSI standard.
- Chin Strap is a required element and shall remain attached to the helmet when tested.

According to Board staff, the Petitioner's request is intended to mitigate risks of a head injury to employees who work at heights and use personal fall protection. Working at height exposes the employee to fall and impact hazards. Workers affected include all industries that have employees who work at heights such as Construction, Agriculture, Manufacturing, Electrical, Petroleum, etc.

At the time the Board staff evaluation was drafted, ANSI Z89.1-2026 had yet to be published. However, staff reasoned that the ANZI standard at the time should be followed because while section 3380(c)(1) requires the employer to ensure that the appropriate impact type helmet is selected and used, employers do not uniformly select Type II helmets as the type of head protection appropriate for employees who use active fall protection systems.

Board staff noted Virginia Tech University developed a rating system called the Safety Technology and Research (STAR) system. They developed test methods beyond the minimum safety standards to quantitatively evaluate impact performance and rate helmets. Historically, their research was focused on head impacts and helmets in sports.

In 2025, the Construction STAR tests methods[4] were developed to quantitively compare safety helmets performance in the context of concussion and skull fracture risks. According to the study, the STAR scores show that Type II helmets reduce the concussion risk by 32.7% and skull fracture by 57.5% compared to the Type I helmets.[5] Virginia Tech Helmet Ratings recommend Type II helmets with a 4 and 5 star rating.

Based on the benefits versus the low cost of Type II helmets, Board staff recommends the Board grant the petition to require ANSI approved Type II helmets for employees who are using an active fall protection system.

VI. DISCUSSION

The Board does not need convincing that head protection designed to reduce penetration and force from impacts to only the top of the head offers less superior safety

[4] Susanna M. Gagliardi, Nicole E.-P Stark, Lee M. Edwards, Mark T. Begonia, and Steve Rowson. *STAR Protocol for Construction Helmets* (Blacksburg, VA; Virginia Tech Helmet Lab, Virginia Tech, 2025), https://vtechworks.lib.vt.edu/server/api/core/bitstreams/87102c67-180f-47e6-82c0-fbdd15c812d4/content

[5] Gagliardi, S.M., Stark, N.EP., Begonia, M.T. *et al.* Development of a Fall-Specific Impact Testing Method to Evaluate Safety Helmet Performance and Injury Risk. *Ann Biomed Eng* **54**, 777–795 (2026). https://doi.org/10.1007/s10439-025-03930-9

to helmets that also protect the sides, back, or front of the head. More clarity is needed on the issue of applicability, cost, and implementation.

A. Should All At Height Workers Be Required to Wear a Type II Helmet?

While the Petitioner uses the term "at height workers" when requesting those impacted be required to wear Type II helmets, this term is not defined. A general industry definition is that "[w]ork at height includes any activity where a person could fall from an elevated surface, from one level to another, or into shafts, pits or other openings. Examples include working on ladders, scaffolding, roofs, elevated work platforms, or near unprotected edges and fragile surfaces. This type of work often requires fall prevention and robust control measures, such as guardrails, personal fall arrest systems or safety nets, to reduce the risk of injury.[6]

The Petitioner also referred to a fall arrest system without describing what this entails. Board staff's evaluation states "[a]ctive fall protection systems are systems that require active participation from the user to prevent fall or arrest falls. Examples of active fall protection systems are personal fall arrest and fall restraint or travel restraint systems. Components of personal fall protection system include: full-body harness, lanyards, self-retracting lifelines (SRL), anchorage points. Passive system does not require user interaction such as guardrails, barriers or nets."

Given the above definitions, it appears that the Petitioner's request that at height workers be required to wear Type II helmets is to be interpreted broadly as there are no height minimums, general industry orders, or construction industry orders specifically mentioned. A potential argument could be made that not all at height workers may require the same protection as safety mechanisms range from guardrails, safety nets, to full arrest systems.

B. The Range of Type II Helmets Vary In Performance, Making A Requirement More Likely Prescriptive

The laboratory testing from Virginia Tech which both Cal/OSHA and Board staff cited estimated that Type II helmets reduce concussion risk by 32.7% and skull fracture risk by 57.5% compared with the Type I helmets tested. These numbers are convincing.

However, as Ca/OSHA points out, there is variability among the Type II helmets; the two best Type II helmets had 28.7% and 33.2% lower concussion risk than the two worst-performing Type II helmets.

The Board staff evaluation attempted to discern Type II helmets further by stating The Virginia Tech Helmet Ratings recommend Type II helmets with a 4 and 5 star rating.

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[6] NSC 2020 Safety Technology in the Workplace Survey. https://www.nsc.org/workplace/safety-topics/work-to-zero/hazardous-situations/work-at-height?srsltid=AYCX9vKf3Wnzq-uAfxv2M4NTX-VFigkeE1qHgpaxJuOwLvbsosu1cnAx

Although that is helpful, it is important to note that Cal/OSHA's evaluation states with respect to the new ANSI Z89.1-2026 standards, Virginia Tech has not yet tested Type II+ or Type I+ helmets.

Moreover, Cal/OSHA suggests going another step further and consider European standards (British and European standard BS EN 17950:2024) that account for establishes a test method specifically designed to measure both translational and rotational kinematics during helmet impacts.

With so much variability in the tested and untested Type II helmets, a requirement that at height workers wear a Type II helmet may be so broad that a specific model of Type II helmet may be required, making the requirement more prescriptive than necessary.

C. No Cost Estimates For a Type II Helmet Have Been Provided

Considering all the options available, the Petitioner, Cal/OSHA, and Board staff have not provided any cost estimates for different types of Type II helmets. The Petitioner only says implementation "has a relatively ow cost." Board staff states Type II helmets "cost significantly more than Type I helmets" with no cost provided for either Type II or Type I helmets. And Cal/OSHA's review fails to mention any costs at all.

D. An Update of Subsection 3381(b) Is Needed, But Implementation Is Not Clear

It is obvious subsection 3381(b) leaves a gap in the regulation of head protection for at height workers. While ANSI Z89.1 may fill in these gaps, considering all the options available, the Board is left with more questions than answers on how to best implement amended regulations.

VII. CONCLUSION AND ORDER

The Board has considered the petition of Greg Small of Outdoor Power Equipment Institute, Inc. to require all at-height workers to wear helmets meeting ANSI Z89.1-2014 Type II. For reasons stated in the preceding discussion, Petition 616 is GRANTED to the extent Board staff will commence an exploratory discussion with balanced stakeholders on how to best integrate specific language from ANSI Z89.1-2026 into section 3381 and other applicable title 8 head protection regulations.

State of California
Department of Industrial Relations
Occupational Safety and Health Standards Board

Petition File No. 616

Board Staff Evaluation
Submitted by Maryrose Chan, Safety Engineer

July 30, 2026

State of California

Gavin Newsom, Governor

INTRODUCTION

On June 29, 2026, Greg Small, PE, a Fall Protection Qualified Person instructor and subject matter expert on fall protection, submitted a petition to oshsb@dir.ca.gov concerning helmet protection for employees working at height.

REQUESTED ACTION

The petitioner requests the Board to consider amending applicable title 8 regulations to require all employees who are using active fall protection systems to wear Type II helmets that meet American National Standards for Industrial Head Protection, ANSI Z89.1-2014.

PETITIONER'S ASSERTIONS

- The head is one of the most vulnerable parts of the human body. Brain injuries do not heal as readily as injuries to other parts of our bodies. Unlike bone, muscle and tendons (which can often completely recover from serious cuts, breaks, tears and punctures), brain tissue does not regenerate. At best, other parts of the brain attempt to partially take over functions lost by the injured part of the brain and are much less effective than the injured brain had been before the injury.
- The greatest risk of head injury when using a fall arrest system is prior to full engagement of the fall arrest system. This occurs during and slightly beyond the Free Fall phase of the fall event. When a worker is tumbling, the head can easily strike objects even if the fall is arrested. Once the fall arrest system is engaged, the body quickly is jerked upright so that the feet are leading the fall and will impact the ground or lower obstruction first, effectively dissipating the fall energy into the strongest parts of our body, shielding and usually preventing appreciable impact energy being delivered to the head.
- Statistics from Australia show that 75% of fall fatalities involve fatal head injuries.
- UK fatalities from falls are about 20% of those recorded in the US (per man-hours worked). Although not discussed at the meeting as a possible reason, a key difference between the US and the UK (and many other countries around the world) is that US workers wear construction hard hats instead of helmets and thus have significantly less reliable head protection. This alone might explain a significant portion of the difference in fatality statistics between the US and the UK.
- US OSHA issued Safety and Health Information Bulletin "SHIB 11-22-2023", recommending the use of Helmets in ALL construction work.

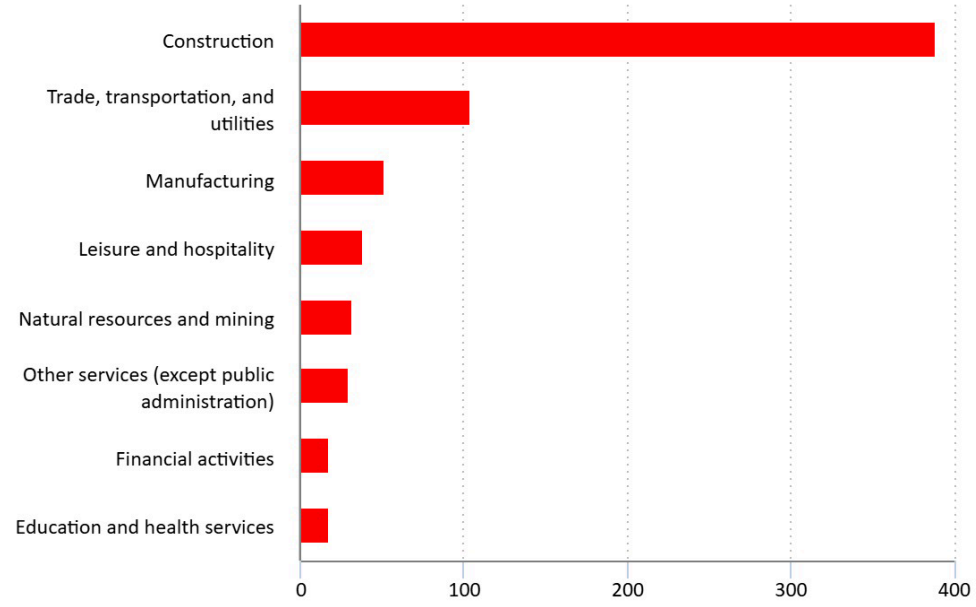
BACKGROUND

Falls remain to be a source of injuries and fatalities in the workplace. According to the US Bureau of Labor and Statistics[1], in 2024, there were 1,034 workplace deaths in the private-sector construction industry. Over one-third (389) of fatal injuries in construction were due to falls, slips, and trips, and 95.9 percent of these were falls to a lower level. Construction accounted for almost half (48.8 percent) of all fatal falls, slips, and trips in private industry in 2024.

These falls often result in head injury. Work-related traumatic brain injuries (WRTBIs) are estimated to represent 4–24% of all traumatic brain injuries reported each year[2]. According to the National Council of Compensation Insurance, brain and head in injuries, such as TBIs, account for a significant portion of mega claims—17% of mega claims between $3 million and $5 million, and 30% of mega claims in excess of $10 million. For active claims between 2013 and 2018, the average total incurred cost per TBI claim was more than double the average for all lost-time claims through a second report. As of 2018, lost-time TBI claims accounted for almost 5% of reported medical payments on all countrywide lost-time claims even though they represent only 2.5% of these claims.[3]

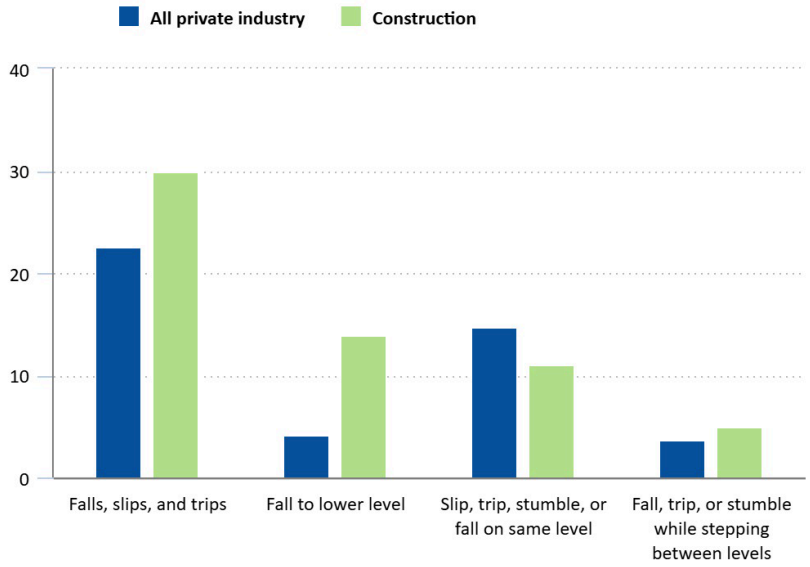
[1] "National Safety Stand-Down Highlights Fall Hazards in Construction : The Economics Daily : U.S. Bureau of Labor Statistics." 2024. Bureau of Labor Statistics. https://www.bls.gov/opub/ted/2026/national-safety-stand-down-highlights-fall-hazards-in-construction.htm.
[2] Colantonio, Angela, Sara Salehi, Vicki Kristman, J. David Cassidy, Angela Carter, Oshin Vartanian, Mark Bayley, et al. 2016. "Return to Work after Work-Related Traumatic Brain Injury." Edited by Juliet Haarbauer-Krupa. NeuroRehabilitation 39 (3): 389–99. https://doi.org/10.3233/nre-161370.
[3] "Traumatic Brain Injuries in Workers Compensation - Associated Medical Services and Costs." 2021. NCCI Holdings Inc. 2021. https://www.ncci.com/Articles/Pages/Insights-Traumatic-Brain-Injuries-WorkersComp.aspx.

Fatal falls, slips, and trips in selected private industries, 2024



Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Annualized rates of nonfatal falls, slips, and trips involving days away from work per 10,000 full-time private-industry workers, 2024



Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

STAFF EVALUATION

Head Protection

American National Standard Institute (ANSI)

Head protection can reduce the severity of the injury and save lives by reducing the impact to the head caused by falling or being struck by moving objects or falling objects.

There are two types of approved impact helmets per American National Standards for Industrial Head Protection, ANSI Z89.1-2014. These are the Type I and Type II impact helmets with three different Classes. For example, one may purchase a Type II, Class E helmet.

- Type I helmets are designed to reduce the impact force from a blow to the top of the head.
- Type II helmets are designed to reduce impact force from a blow to the top or sides of the head.
- Class G (General) intended to reduce the danger of contact with low voltage conductors. Test samples shall be proof tested at 2200 volts (phase to ground)
- Class E (Electrical) Class E helmets are intended to reduce the danger of contact with higher voltage conductors. Test samples shall be proof tested at 20,000 volts (phase to ground).
- Class C (Conductive) are not intended to provide protection against contact with electrical hazard.

Additional Requirements for Type II helmets

Type II helmets are required to meet additional performance requirements by passing the ANSI prescribed test methods.

- Impact Energy Attenuation. Type II helmets include a liner (foam) that is intended to absorb impact force, therefore lessening the amount of impact energy received by the head. Impact Energy Attenuation test is in section 10.4 of the ANSI standard.
- Off-Center Penetration. The impact testing on the headform is performed in various positions to demonstrate protection against impact.: front, side, rear and anywhere on the shell above the Dynamic Test Line (DTL) - drawing in ANSI standard. Impact penetration test is in section 10.5 of the ANSI standard.
- Chin Strap is a required element and shall remain attached to the helmet when tested.

Virginia Tech University STAR system rating

Virginia Tech University developed a rating system called the Safety Technology and Research (STAR) system. They developed test methods beyond the minimum safety standards to quantitatively evaluate impact performance and rate helmets. Historically, their research was focused on head impacts and helmets in sports.

In 2025, the Construction STAR tests methods[4] were developed to quantitively compare safety helmets performance in the context of concussion and skull fracture risks. According to the study, the STAR scores show that Type II helmets reduce the concussion risk by 32.7% and skull fracture by 57.5% compared to the Type I helmets.[5] Virginia Tech Helmet Ratings recommend Type 2 helmets with a 4 and 5 star rating.

Cost

Board staff compared the cost of Type I and Type II helmets from various vendors and Type II helmets cost significantly more than Type I helmets.

Benefit

Type II helmets are designed to lessen the impact to the head, thereby decreasing the severity of the injury, which can potentially save lives and reduce costs caused by the injury.

Active vs Passive Fall Protection Systems

Active fall protection systems are systems that require active participation from the user to prevent fall or arrest falls. Examples of active fall protection systems are personal fall arrest and fall restraint or travel restraint systems. Components of personal fall protection system include: full-body harness, lanyards, self-retracting lifelines (SRL), anchorage points. Passive system does not require user interaction such as guardrails, barriers or nets.

RELEVANT STANDARDS

Federal Standards

There are no federal standards that specifically prescribe Type II helmets for employees who use active fall protection. However, there is a standard that requires employers to assess the risks prior to selecting personal fall protection. To serve as guidance for evaluating risk and selecting the appropriate head protection, OSHA released a safety bulletin SHIB 3-6-2024 Head Protection: Safety Helmets in the Workplace

29 CFR Subpart I – Personal Protective Equipment

CFR 1910.132. General Requirements

[4] Susanna M. Gagliardi, Nicole E.-P Stark, Lee M. Edwards, Mark T. Begonia, and Steve Rowson. *STAR Protocol for Construction Helmets* (Blacksburg, VA; Virginia Tech Helmet Lab, Virginia Tech, 2025), https://vtechworks.lib.vt.edu/server/api/core/bitstreams/87102c67-180f-47e6-82c0-fbdd15c812d4/content

[5] Gagliardi, S.M., Stark, N.EP., Begonia, M.T. *et al.* Development of a Fall-Specific Impact Testing Method to Evaluate Safety Helmet Performance and Injury Risk. *Ann Biomed Eng* **54**, 777–795 (2026). https://doi.org/10.1007/s10439-025-03930-9

1910.132(d)

Hazard assessment and equipment selection.

1910.132(d)(1)

The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall:

1910.132(d)(1)(i)

Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment;

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29 CFR 1910.35 Head Protection

1910.135(a)

General requirements.

1910.135(a)(1)

The employer shall ensure that each affected employee wears a protective helmet when working in areas where there is a potential for injury to the head from falling objects.

1910.135(a)(2)

The employer shall ensure that a protective helmet designed to reduce electrical shock hazard is worn by each such affected employee when near exposed electrical conductors which could contact the head.

1910.135(b)

Criteria for head protection.

1910.135(b)(1)

Head protection must comply with any of the following consensus standards:

1910.135(b)(1)(i)

American National Standards Institute (ANSI) Z89.1-2009, “American National Standard for Industrial Head Protection,” incorporated by reference in § 1910.6

California Standards

California is more protective than the federal standard, because the employer under section 3381(c)(1) is required to select and require employees to use the appropriate impact helmet.

T8 CCR 3380. Personal Protective Devices

(f) Hazard assessment and equipment selection.

(1) The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall:

(A) Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment;

*****

T8 CCR 3381. Head Protection.

(a) Employees working in locations where there is a risk of receiving head injuries from flying or falling objects and/or electric shock and burns shall wear approved head protection in accordance with this section.

(b) When head protection is required, the employer shall provide each employee with head protection that meets the criteria in one of the following standards, which are hereby incorporated by reference:

(1) American National Standards Institute (ANSI)/International Safety Equipment Association (ISEA) Z89.1-2009, “American National Standard for Industrial Head Protection;”

(2) ANSI Z89.1-2003, “American National Standard for Industrial Head Protection;” or

(3) ANSI Z89.1-1997, “American National Standard for Industrial Head Protection.”

(c)(1) The employer shall ensure that the appropriate impact type helmet is selected and used.

Note: Protective helmets are described by impact type and electrical class. All protective helmets required by subsection (b) meet either Type I or Type II impact requirements. Type I helmets are intended to reduce the force of impact resulting from a blow only to the top of the head. Type II helmets are intended to reduce the force of impact resulting from a blow to the top or sides of the head.

*****

Consensus Standards

American National Standards for Industrial Head Protection, ANSI Z89.1-2014 (R-2019)

EN 397: 2025 Industrial Protective Helmets

EN 397: 2025 Technical Guidance

Other Standards, Guidelines, Codes

NIOSH Science Bulletin, November 10, 2022

Construction Helmets and Work-related Traumatic Brain Injury

STAFF ANALYSIS

Scope

The requested action will affect all industries that have employees who work at heights such as Construction, Agriculture, Manufacturing, Electrical, Petroleum, etc.

Evaluation of Risk

The requested action is intended to mitigate risks of a head injury to employees who work at heights and use personal fall protection. Working at height exposes the employee to fall and impact hazards.

As stated by the Petitioner, “the greatest risk of head injury when using a fall arrest system, is prior to full engagement of the fall arrest system. This occurs during and slightly beyond the Free Fall phase of the fall event. When a worker is tumbling, the head can easily strike objects even if the fall is arrested…”

Swing falls are dangerous. Swing falls occur when the personal fall arrest system is not anchored directly overhead. If a fall occurs, the employee will swing back and forth like a pendulum until the employee comes to a rest. While falling and swinging the employee may hit obstructions along the fall and swing path causing injuries to the worker, including the possibility of hitting their head. The jerking and swinging during a fall can cause the helmet to be dislodged from the head leaving the employee without head protection. Type II helmets are required to have a chin strap, thus helping secure the head protection.

Employees who wear active fall protection are exposed to the hazard of falling, falling objects, striking objects during the fall, thereby they are exposed to the risk of a head injury through impacts to the top, side and rear of the head.

STAFF RECOMMENDATION

Although section 3380(c)(1) requires the employer to ensure that the appropriate impact type helmet is selected and used, employers do not uniformly select Type II helmets as the type of head protection appropriate for employees who use active fall protection systems.

Therefore, Board staff recommend the Board to GRANT the petition to require ANSI approved Type II helmets for employees who are using an active fall protection system.

State of California
Department of Industrial Relations
Division of Occupational Safety and Health

Memorandum

Date: October 26, 2026

To: Millicent Barajas, Executive Officer
Kevin Goddard, Principal Safety Engineer
Occupational Safety and Health Standards Board

From: Victor Copelan, Senior Safety Engineer
Jason Denning, Principal Safety Engineer
Eric Berg, Deputy Chief of Health
Division of Occupational Safety and Health

Subject: Evaluation of Petition No. 616 to require workers at height to wear ANSI Z89.1-2014 Type II helmets with chin strap retention systems.

1.0 INTRODUCTION

On June 29, 2026, the Occupational Safety and Health Standards Board (Standards Board) received a petition from Mr. Greg Small, founder of Elevated Insight & Engineering Ltd. (Petitioner), proposing a requirement that workers at height wear helmets meeting ANSI Z89.1-2014 Type II requirements. The petitioner is a Professional Engineer and a fall protection qualified person instructor.

Labor Code Section 142.2 permits interested persons to propose new or revised standards concerning occupational safety and health and requires the Standards Board to consider such proposals. California Labor Code section 147 requires the Standards Board to refer to the Division of Occupational Safety and Health (Cal/OSHA) for evaluation of any proposed occupational safety and health standard.

2.0 PETITIONER'S PROPOSAL AND BASIS FOR AMENDMENT OF TITLE 8 REGULATIONS

The petitioner requests that the Standards Board adopt a safety standard that requires workers at height to wear safety helmets that meet the American National Standards Institute (ANSI) Z89.1-2014 Type II requirements and have a chin strap to keep the helmet on the worker's head during a fall. Currently, title 8 regulations do not specifically address helmet selection criteria for employees exposed to falls from height.

No specific regulatory text was proposed in the petition; however, the petitioner suggests that the standard could be included in the current Walking-Working Surfaces proposal within the title 8 General Industry Safety Orders. The petitioner provided the following rationale for their request:

- During falls from elevation, construction hard hats often come off workers' heads.
- The head is one of the most vulnerable parts of the human body. Head injuries do not heal as readily as injuries to other parts of the body. Brain tissue does not regenerate. At best, other parts of the brain take over the functions lost by the injured part of the brain and are much less effective than the injured brain had been before the injury.

- During a tumbling fall, the greatest risk of head injury, when using a fall arrest system, is prior to full engagement of the fall arrest system. This occurs slightly beyond the free fall phase. When a worker is tumbling, the head can easily strike objects even if the fall is arrested. Once the fall arrest system is engaged the body is jerked upright so that the feet are leading the fall.
- Statistics from Australia show that 75% of fall fatalities involve fatal head injuries.
- In the petitioner's work as an expert witness investigating fall incidents on behalf of various entities, including regulators, the petitioner can confirm that the vast majority of fatalities and serious injuries involved the head striking something.
- The petitioner is a member of the ANSI Z359 Fall Protection committee and referenced a meeting approximately two years ago during which members from the United Kingdom (UK) gave an informal presentation indicating that fatalities from falls per person-hour worked in the UK are only 20% of those recorded in the United States. Although not discussed at the meeting, a key difference between the US and the UK (and many other countries) is that US workers wear construction hard hats instead of ANSI Z89.1 Type II helmets, and thus US workers have significantly less reliable head protection than workers in other countries.
- The Petitioner cites federal OSHA Safety and Health Information Bulletin 11-22-2023 which recommends the use of Type II helmets at construction sites with high risks of falling objects, impacts from equipment, awkward working positions, or slip, trip, and fall hazards.
- California is not working on regulations for head protection at this time and may not do so for many years.
- Fatal fall statistics in the United States and California have not appreciably improved for more than 20 years. For a variety of reasons, the fall protection community struggles to mitigate this hazard. Reasons that are frequently discussed include: complacency; misconceptions; misuse; and fall scenarios (such as residential roof construction) that continue to be difficult to protect. Better head protection will mitigate a lot of the consequence of other controls that have failed to effectively address head injuries caused by falls.
- Cal/OSHA should make the change proactively rather than waiting decades to reactively revise California regulations after federal OSHA fully implements it. In addition to saving California workers' lives immediately, California might assist federal OSHA and the rest of the country if the state is able to show a significant reduction in fall injury statistics as compared to the rest of the country.

3.0 APPLICABLE TITLE 8 REGULATIONS

California Code of Regulations, title 8, section 3381 of the General Industry Safety Orders addresses head protection from the hazard of flying or falling objects and/or electric shock and burns. It does not specifically address protection from head injuries caused by falls.

Subsection 3381(b) requires head protection to meet the requirements of either the 1997, 2003, or 2009 edition of the ANSI Z89.1 American National Standard for Industrial Head Protection standard. Subsection 3381(c)(1) requires that the appropriate impact type helmet is selected and used; and contains a non-enforceable note describing Type I and Type II helmets. The regulation has not been updated to include the 2014 or the 2026 versions of ANSI Z89.1.

Section 3381 also covers construction work as title 8 section 1515 Head Protection in the Construction Safety Orders was repealed in 2000.

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Subchapter 7. General Industry Safety Orders
Group 2. Safe Practices and Personal Protection
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Article 10. Personal Safety Devices and Safeguards

§3381. Head Protection

(a) Employees working in locations where there is a risk of receiving head injuries from flying or falling objects and/or electric shock and burns shall wear approved head protection in accordance with this section.

(b) When head protection is required, the employer shall provide each employee with head protection that meets the criteria in one of the following standards, which are hereby incorporated by reference:

(1) American National Standards Institute (ANSI)/International Safety Equipment Association (ISEA) Z89.1-2009, "American National Standard for Industrial Head Protection;"

(2) ANSI Z89.1-2003, "American National Standard for Industrial Head Protection;" or

(3) ANSI Z89.1-1997, "American National Standard for Industrial Head Protection."

(c)(1) The employer shall ensure that the appropriate impact type helmet is selected and used.

Note: Protective helmets are described by impact type and electrical class. All protective helmets required by subsection (b) meet either Type I or Type II impact requirements. Type I helmets are intended to reduce the force of impact resulting from a blow only to the top of the head. Type II helmets are intended to reduce the force of impact resulting from a blow to the top or sides of the head.

(2) The employer shall ensure that the appropriate electrical class of ANSI designated helmet is selected and used in accordance with the following:

(A) When there is no risk of head injury from contact with electrical conductors, and protective helmets are only required to reduce the danger of injury from flying or falling objects, protective helmets shall be ANSI-Z89.1 designated Class C, E, or G.

(B) When there is a risk of head injury from contact with conductors less than 600 volts, protective helmets shall be ANSI-Z89.1 designated Class E or G.

(C) When there is a risk of head injury from contact with conductors greater than 600 volts, protective helmets shall be ANSI-Z89.1 designated Class E.

(3) The employer shall ensure that the head protection provided for each employee exposed to high-voltage electric shock and burns also meets the specifications contained in Section 9.7 "Electrical Insulation" of any of the consensus standards identified in subsection (b) of this section.

(d) Each approved protective helmet required by subsection (b) shall bear the permanent markings required by the ANSI standard under which it was approved. At a minimum, the marking shall identify the manufacturer, ANSI designated standard number and date, and ANSI designated class and impact type of helmet.

(e) Where there is a risk of injury from hair entanglements in moving parts of machinery, combustibles or toxic contaminants, employees shall confine their hair to eliminate the hazard.

California Code of Regulations title 8 section 1907 includes requirements for personal protective equipment for helicopter ground crews including head protection. Subsection 1907(b) requires approved head protection with chin straps to be worn by members of helicopter ground crews.

> Subchapter 4. Construction Safety Orders
> Article 35. Helicopter Operations
> *****
>
> §1907. Ground Crew.
> (b) Ground crewmembers shall wear dust goggles for eye protection and approved head protection with chin straps in place. Ear protection and dust protection where required shall be in accordance with applicable safety orders.
> *****

California Code of Regulations title 8 section 8414 includes requirements for personal protective equipment for tunneling operations including head protection. Subsection 8414(b) requires approved head protection be provided to employees.

> Subchapter 20. Tunnel Safety Orders
> Article 5. Personal Protective Equipment
> §8414. Personal Protective Equipment.
>
> *****
> (b) Head Protection. Every employee shall be provided with and required to wear approved head protection. Winter liners shall be provided when weather conditions warrant.

*****

4.0 APPLICABLE FEDERAL OSHA REGULATIONS

Federal OSHA regulations address personal protective equipment for eyes, face, head, and extremities and respiratory protection in Title 29 Code of Federal Regulations (29 CFR) section 1910.132. Pursuant to subsection 1910.132(d)(1), personal protective equipment is required for hazards that are present or likely to be present.

> 1910 Occupational Health and Safety Standards
> 1910 subpart I Personal Protective Equipment
> 1910.132 General Requirements
>
> *****
> 1910.132(d)(1) The employer shall assess the workplace to determine if hazards are present, or likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall:
>
> 1910.132(d)(1)(i) Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment;
>
> *****

Federal OSHA standard 29 CFR 1910.135 governs general-industry head protection requirements. Subsection

1910.135(b) requires head protection to comply with the 1997, 2003, or 2009 editions of the ANSI Z89.1 standard. Federal OSHA's head protection standards have not incorporated the 2014 or 2026 editions of the standard, nor do they specify the type of helmet that must be used.

> 1910 Occupational Safety and Health Standards
> 1910.135 Head Protection
>
> 1910.135(a) General requirements.
>
> 1910.135(a)(1) The employer shall ensure that each affected employee wears a protective helmet when working in areas where there is a potential for injury to the head from falling objects.
>
> *****
>
> 1910.135(b) ***Criteria for head protection.***
>
> 1910.135(b)(1) Head protection must comply with any of the following consensus standards:
>
> 1910.135(b)(1)(i) American National Standards Institute (ANSI) Z89.1-2009, "American National Standard for Industrial Head Protection," incorporated by reference in § 1910.6;
>
> 1910.135(b)(1)(ii) American National Standards Institute (ANSI) Z89.1-2003, "American National Standard for Industrial Head Protection," incorporated by reference in § 1910.6; or
>
> 1910.135(b)(1)(iii) American National Standards Institute (ANSI) Z89.1-1997, "American National Standard for Personnel Protection - Protective Headwear for Industrial Workers - Requirements," incorporated by reference in § 1910.6.
>
> 1910.135(b)(2) Head protection devices that the employer demonstrates are at least as effective as head protection devices that are constructed in accordance with one of the above consensus standards will be deemed to be in compliance with the requirements of this section.

OSHA has similar requirements to 1910.135 for head protection in shipyards (29 CFR 1915.155), marine terminals (29 CFR 1917.93), longshoring (29 CFR 1918.103), and construction (29 CFR 1926.100).

5.0 APPLICABLE CONSENSUS STANDARDS

5.1 ANSI/ISEA Z89.1-2014

The 2014 edition of the American National Standards Institute (ANSI) Z89.1 standard (Attachment 1), referenced by the petitioner, establishes minimum performance and labeling requirements for protective helmets used in industrial and occupational settings under normal temperature conditions and optionally at high and low temperatures and when worn in the reversed position. It also includes requirements for high-visibility helmets and specifies test methods for evaluating all requirements.

Helmets conforming to the requirements of this standard are designated both by Type (based on location of penetration/impact force) and Class (based on electrical insulation) as well as certain optional features.

The helmet type is the part of the ANSI Z89.1 standard relevant to this petition (the petitioner requests Type II helmets with chin straps for workers exposed to falls). The types are:

- Type I helmets: designed to reduce penetration and force from impacts to the top of the head; they are not tested for protection to the sides, back, or front of the head.
- Type II helmets: designed to reduce penetration and force from impacts to both the top and lateral areas (front, back, and sides) of the head.

The Type II designation also includes additional testing requirements for chin strap retention if a chin strap retention system is provided with the helmet. However, chin straps are optional and **not** required on Type II helmets.

5.2 ANSI/ISEA Z89.1-2026

ANSI Z89.1-2026 (Attachment 2) introduced Type I+ and Type II+ helmets, which are new designations that do not exist in previous versions of the standard. Both new designations require helmet chin straps and two specific evaluations: 1) chin strap retention system testing and 2) retention system effectiveness (roll-off) testing.

The "+" types in the 2026 standard do not eliminate the previous and less protective Type I and Type II helmets, which remain unchanged from the 2014 version of the standard. Type I helmets do not have a chin strap option or testing for chin straps. Type II helmets have an option for a chin strap, and if included, are tested for chin strap retention. However, standard Type II helmets do not require the retention system effectiveness (roll-off) testing mandated for Type I+ and Type II+ helmets.

Type I+ helmets must pass off-center force-transmission testing (which is not required for Type I helmets) at the front, rear, and side and may not transmit more than 10 kN of force. However, Type I+ helmets are not required to meet the Type II impact-energy attenuation and off-center penetration requirements applicable to Type II and Type II+ helmets.

No helmet types in ANSI Z89.1-2026 or earlier versions include test methods for protection from rotational motion on the head and brain caused by impacts (see part 6.4 of this evaluation for further information on brain injuries caused by rotational motion).

5.3 BS EN 397 and 13087

BS EN 397 and 13087 are British and European Standards for industrial safety helmets. BS EN 397 sets mandatory performance and design requirements for helmets, while BS EN 13087 provides a series of test methods used in a laboratory to measure those performance criteria.

BS EN 397 – Industrial Protective Helmets – specifies minimum physical criteria for safety helmets such as shock absorption, penetration resistance, flame resistance, and retention system (chin strap) effectiveness.

BS EN 13087, Protective Helmets—Test Methods, is a ten-part series specifying test methods for industrial protective helmets. The parts of this standard relevant to this petition are the following:

- Part 2: Test methods for shock absorption
- Part 3: Test methods for resistance to penetration
- Part 4: Test methods for retention system effectiveness
- Part 5: Test methods for retention system strength

BS EN 397 and BS EN 13087 do not include requirements or test methods for protection from rotational motion on the head and brain caused by impacts.

5.4 BS EN 17950:2024

BS EN 17950:2024, titled "Protective helmets - Test methods - Shock absorption including measuring rotational kinematics" (Attachment 3), includes test methods to measure translational (linear) and rotational forces from helmet impacts. The 2024 edition of BS EN 17950 describes helmet test protocols for shock absorption including measuring rotational kinematics.

6.0 CAL/OSHA ANALYSIS

6.1 Traumatic Brain Injuries in Construction

According to the American Journal of Industrial Medicine, 2,210 fatal traumatic brain injuries (TBI) occurred in construction at a rate of 2.6 per 100,000 full-time equivalent (FTE) workers from 2003 to 2010. Based on data extracted from the Bureau of Labor Statistics Census of Fatal Occupational Injuries, workers aged 65 years and older had the highest fatal TBI rates among all workers (7.9 per 100,000 FTE workers). Falls were identified as the most frequent injury event (n = 1,269, 57%) and structural iron and steel workers and roofers had the highest fatal TBI rate per 100,000 FTE workers (13.7 and 11.2, respectively). Fall-related TBIs were the leading cause of death in these occupations. These deaths represented 25% of all construction fatalities and 24% of all work-related TBI fatalities among all industries during that period. [1]

The American Journal of Industrial Medicine also reported that construction workers are at higher risk for TBIs because of their work in dynamic environments where they can be struck by falling and flying objects or fall from elevation. Falls, especially from roofs, ladders, and scaffolds, are a major cause of lost-time TBIs. [2]

A study published in the Annals of Biomedical Engineering journal found that lateral (from the side) impacts in football are likely to cause rotational accelerations in the brain, which is a mechanism of injury leading to concussions among persons experiencing brain trauma.[3]

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[1] Konda S, Tiesman HM, Reichard AA. Fatal traumatic brain injuries in the construction industry, 2003-2010. Am J Ind Med. 2016 Mar;59(3):212-20. pubmed.ncbi.nlm.nih.gov/26765167/.

[2] Konda S, Al-Tarawneh IS, Reichard AA, Tiesman HM, Wurzelbacher SJ, Pinkerton LE, Meyers AR, Hendricks SA, Tseng CY, Lampl MP, Robins DC. Workers' compensation claims for traumatic brain injuries among private employers-Ohio, 2001-2011. Am J Ind Med. 2020 Feb;63(2):156-169. pubmed.ncbi.nlm.nih.gov/31742763/

[3] Rowson S, Duma SM. Brain injury prediction: assessing the combined probability of concussion using linear and rotational head acceleration. Ann Biomed Eng. 2013 May;41(5):873-82. pubmed.ncbi.nlm.nih.gov/23299827/

6.2 ANSI Z89.1-2014 Type I vs. Type II Safety Helmets

Under ANSI Z89.1-2014, industrial safety helmets are classified as Type I or Type II based on their impact protection. Type I helmets are designed and tested to provide protection against impacts to the top of the head only, while Type II helmets provide protection against impacts to both the top and sides of the head, including front, rear, and lateral impacts. Type I (Figure 1) helmets are usually of the "traditional hard hat" style with a suspension system that spreads downward force. They are generally lighter and have fewer internal components than Type II helmets.



Figure 1. ANSI Type I Safety

Type II (Figure 2) helmets often resemble a modern safety helmet rather than a traditional hard hat, typically featuring internal foam liners (like expanded polystyrene or Koroyd[4]) to better absorb and protect from off-center and side impacts. The option and testing requirements for a chin strap retention



Figure 2. ANSI Type II Safety Helmet

system are also included in ANSI Z89.1-2014 for Type II but not for Type I helmets. However, chin strap retention systems are optional for Type II helmets.

Laboratory testing from Virginia Tech estimated that Type II helmets reduce concussion risk by 32.7% and skull fracture risk by 57.5% compared with the Type I helmets tested. However, there is variability among the Type II helmets; the two best Type II helmets had 28.7% and 33.2% lower concussion risk than the two worst-performing Type II helmets. They have not yet tested Type II+ or Type I+ helmets.

Although superior to Type I, Cal/OSHA considers the Type II helmet designation alone as insufficient because the chin strap retention system is optional.

[4] Koroyd is lightweight energy-absorbing impact protection material made from thousands of co-polymer tubes that are thermally welded together without glue.

6.3 ANSI Z89.1-2026 Type I+ and Type II+ Safety Helmets

The new "+" designation in the 2026 standard is important because head protection is ineffective if a worker falls and the helmet does not stay on their head. Both Type I+ and Type II+ helmets must include a chin strap retention system and meet standardized test requirements designed to evaluate the strap and the helmet's ability to remain properly positioned after an impact.

In addition to the mandatory chin strap retention system requirements, Type I+ helmets must pass off-center force-transmission testing at the front, rear, and side and cannot transmit more than 10 kN of force. However, Type I+ helmets are not tested to the Type II lateral impact-energy attenuation and off-center penetration criteria.

Type II+ helmets combine the existing Type II impact-energy attenuation and off-center penetration requirements with the new "+" retention requirements. As a result, Type II+ helmets provide protection from top and lateral impacts while incorporating requirements to improve helmet retention during falls and other incidents involving worker movement.

Based on 1) the lower concussion and skull fracture risk estimated for the Type II helmets compared to the Type I helmet in the Virginia Tech testing, 2) the need for a mandatory helmet retention system, and 3) the enhanced lateral impact and penetration protection of Type II+ helmets compared to Type I+ helmets, Cal/OSHA considers Type II+ helmets meeting ANSI Z89.1-2026 to be the minimum level of head protection that should be required for employees exposed to falls from height.

6.4 Protection Against Rotational Motion Would Further Enhance Worker Safety

Researchers at Virginia Tech test and rate the effectiveness of helmets, including those used by construction workers. The researchers have found that current industrial helmet standards only test for linear (translational) impacts (like an object falling on a stationary worker). However, real-world workplace falls also cause angled (oblique) impacts.[5] These oblique impacts generate rapid twisting or rotational forces on the brain. While linear forces cause skull fractures, rotational forces cause the brain to rotate inside the skull, tearing brain tissue and causing concussions, a type of traumatic brain damage called diffuse axonal injury (tears to brain nerve fibers), and subdural hematoma (blood accumulation between the brain and skull caused by torn blood vessels). These injury mechanisms may occur even when linear accelerations are insufficient to cause skull fracture. [6]

Substantial biomechanical research has identified rotational acceleration as a significant mechanism of concussion, diffuse axonal injury, and other traumatic brain injuries. Research using more than 300,000 head impacts among football players found that rotational acceleration and rotational velocity are strongly associated with concussion risk and other brain injuries based on rotational head kinematics (the measurement and analysis of angular motion, velocity, and acceleration of the head during impact or sudden movement).

Falls from elevation often involve oblique impacts rather than purely vertical impacts. As a worker falls,

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[5] Ibid.

[6] Mips Corp. *Third-party studies*. Mips. Retrieved October 23, 2026, from mipsprotection.com/helmet-technology/third-party-studies/.
Mips Corp. *Rotational Motion*. Mips. Retrieved October 23, 2026, from mipscorp.com/about-mips/rotational-motion/

the head may strike structural members, equipment, building surfaces, or the ground at an angle. These oblique impacts generate both translational and rotational motion and are thus capable of producing rotational loading of the brain. Research supporting the development of modern rotational helmet evaluation methods indicates that both oblique and translational impacts are commonly encountered in real-world injury events and that including both types of impacts may be more representative of actual accident conditions than evaluating helmets only for perpendicular impacts.

ANSI Z89.1-2026 and earlier versions of the standard evaluate helmet performance against penetrative and translational impacts. Although ANSI Z89.1-2026 substantially improves worker protection through the introduction of Type I+ and Type II+ helmets and mandatory retention system testing, the standard does not include evaluation of rotational kinematics associated with oblique impacts.

Recognition of rotational injury mechanisms has resulted in the development of new helmet testing methodologies. The British and European standard BS EN 17950:2024 establishes a test method specifically designed to measure both translational and rotational kinematics during helmet impacts. Similarly, the Virginia Tech Helmet Lab construction helmet rating system evaluates helmet performance using oblique fall-impact scenarios and incorporates both linear and rotational head acceleration measurements when estimating concussion risk.[7]

Because falls from height commonly involve oblique impacts capable of generating rotational motion of the head, consideration should be given to whether employees exposed to fall hazards would benefit from head protection evaluated for both translational and rotational impact performance.

An advisory committee could further evaluate the necessity and scientific basis for incorporating rotational-impact evaluation methods, including BS EN 17950:2024, Virginia Tech's construction helmet rating system, or equivalent methodologies, into future California head protection requirements.

6.5 The Petitioner's Proposal to Include Improved Head Protection in the Walking-Working Surfaces Regulation Alone is Not Sufficient

The petitioner's proposal to include a requirement for ANSI Type II helmets within the current title 8 Walking-Working Surfaces (WWS) rulemaking is not sufficient and would leave gaps in protection without requirements in other title 8 head protection regulations. Cal/OSHA recommends that the requirement for improved head protection be included in title 8 section 3381 with references in the WWS regulations as well as other applicable regulations where employees working at height could be exposed to head injuries from fall hazards.

7.0 CONCLUSION

Cal/OSHA recommends that Petition 616 be GRANTED in part as follows:

- A balanced advisory committee composed of appropriate members should be convened to draft specific language for inclusion of ANSI Z89.1-2026 in section 3381 and other applicable title 8 head protection regulations.

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[7] Virginia Tech Helmet Lab. (2025). *Construction Helmet Ratings*. Virginia Polytechnic Institute and State University. Accessed on October 24, 2026. https://www.helmet.beam.vt.edu/construction-helmet-ratings.html.
British Standards Institution. (2024). *Protective helmets — Test methods — Shock absorption including measuring rotational kinematics* (BS EN 17950:2024). BSI. bsigroup.com

- ANSI Z89.1-2026 Type II+ helmets be required for workers exposed to falls from height rather than the Type II helmets proposed by the petitioner.
- Consider requiring evaluation of Type II+ helmets in accordance with BS EN 17950:2024 or equivalent methodology to address rotational forces related to falls from elevation.

cc: Debra Lee, Cal/OSHA Chief

From: Greg Small
To: DIR OSHSB
Subject: Petition Request - Use of Tye 2 Hardhats in Walking-Working Surfaces standard that is currently being revised in California.
Date: Monday, June 29, 2026 2:50:41 PM
Attachments: image001.png
image003.png

CAUTION: [External Email]
This email originated from outside of our DIR organization. Do not click links or open attachments unless you recognize the sender and know the content is expected and is safe. If in doubt reach out and check with the sender by phone.

Hi,

I am submitting this email as a formal petition requesting the state of California to consider requiring all at-height workers to wear Helmets (meeting ANSI Z89.1-2014 Type II).

As a Fall Protection Qualified Person instructor, one thing I have greatly emphasized in my courses for more than a decade has been to ensure workers wear Helmets that are rated for side and top impacts and that have a harness that will hold the hardhat on their head when they fall.

I respectfully ask you to consider the following as you contemplate the merit of my request:

1. In the second presentation in my Qualified Person training, I show a video of a real (but minor) fall where a worker tumbles out of a scaffold that is about 8 feet off the ground. It shows that the first thing to happen is for the construction hardhat to come of the head. Fortunately, the worker lands horizontally, chest down, distributing the impact into his legs, hips and has time to get his arms beneath his torso. He has enough arm and neck strength to hold his head from hitting the ground and is likely subject to only minor injuries (if any). Nonetheless, it is easy to picture much more serious injuries if the worker had fallen from a greater height, or if the head had struck something on the way down, or if the body had become inverted so that the head was the first part of the body to contact the ground.
2. The head is one of the most vulnerable parts of the human body. Brain injuries do not heal as readily as injuries to other parts of our bodies. Unlike bone, muscle and tendons (which can often completely recover from serious cuts, breaks, tears and punctures), brain tissue does not regenerate. At best, other parts of the brain attempt to partially take over functions lost by the injured part of the brain, and are much less effective than the injured brain had been before the injury.
3. In the second presentation of my Qualified Person training, I play an animation of a tumbling fall that shows that the greatest risk of head injury when using a fall arrest system, is prior to full engagement of the fall arrest system. This occurs during and slightly beyond the Free Fall phase of the fall event. When a worker is tumbling, the head can easily strike objects even if the fall is arrested. Once the fall arrest system is engaged, the body quickly is jerked upright so that the feet are leading the fall and will impact the ground or lower obstruction first, effectively dissipating the fall energy into the strongest parts of our body, shielding and usually preventing appreciable impact energy being delivered to the head.
4. In the second presentation of my Qualified Person training I show statistics from Australia that 75% of fall fatalities involve fatal head injuries.
5. In my forensic work as an expert witness investigating fall incidents (on behalf of various entities, including regulators), I can confirm that the vast majority of fatalities and serious injuries involved the head striking something, which aligns with the Australian statistics.
6. I am a member of ANSI Z359, and attest to a meeting a couple of years ago, where members of our committee from the UK gave an informal presentation that showed that the UK fatalities from falls are about 20% of those recorded in the US (per man-hours worked). Although not discussed at the meeting as a possible reason, a key difference between the US and the UK (and many other countries around the world) is that US workers wear construction hardhats instead of helmets, and thus have significantly less reliable head protection. This alone might explain a significant portion of the difference in fatality statistics between the US and the UK.
7. Two and a half years ago, US OSHA issued Safety and Health Information Bulletin “SHIB 11-22-2023”, recommending the use of Helmets in ALL construction work. While this is not yet a mandatory requirement within the federal regulations, it appears that OSHA issued the bulletin to get this protection in place as early as possible, and ultimately intends to make it a part of the regulations in the future when the regulations are next worked on.
8. California is not working on the regulations for head protection at this time, and may not do so for many years. Since Falls from height continue to be the leading cause of death in construction, this simple change can temporarily be put into the Walking-Working Surfaces regulations now, where head protection perhaps needed the most.
9. Fall fatality statistics in the United states and California have not appreciably improved for more than 20 years, for a wide variety of reasons the fall protection community continually struggles to mitigate. Reasons that are frequently discussed include: complacency; misconceptions; misuse; and fall scenarios (such as residential roof construction) that continue to be very difficult (perhaps infeasible) to protect. Better head protection will mitigate a lot of the consequences of the other things we have failed to effectively address so far.

In my opinion, improved head protection is extremely simple to understand and implement and has a relatively low cost. It has potential to significantly reduce fatalities and life-changing injuries, even as we continue to achieve limited success against all the other factors listed in point

number 9, above, at very low cost. If this turns out to be as beneficial as I expect it could be, we should make this change proactively, rather than waiting decades to reactively revise California law AFTER Fed OSHA fully implements it. In addition to saving Californian lives immediately, you might actually assist Fed OSHA and the rest of the country get this into law sooner if California is able to show a significant reduction in Fall injury statistics as compared to the rest of the Country.

If you would like me to offer a webinar of the second presentation of my Qualified Person training to whoever may consider my request, I would be happy to do so.

Greg Small, PE, P.Eng., M.Eng
Founder, Elevated Insight & Engineering Ltd.
757 Marine Drive SE, Calgary, AB T3M 3A3
www.EIEL.org H: (403) 764-2125 C: (403) 827-0495

Occupational Safety and Health Standards Board

Business Meeting Proposed Variance Decisions

Prepared by the Department of Industrial Relations
Available on the DIR web page: Standards Board (OSHSB) 2026 Meeting Schedule

CONSENT CALENDAR—PROPOSED VARIANCE DECISIONS
NOVEMBER 19, 2026, MONTHLY BUSINESS MEETING
OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED DECISIONS FOR BOARD CONSIDERATION, HEARD ON OCTOBER 21, 2026

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
1. 17-V-392M2	Metro Owners Association	ELEVATOR	GRANT
2. 18-V-077M2	Metro Owners Association	ELEVATOR	GRANT
3. 18-V-135M2	Metro Owners Association	ELEVATOR	GRANT
4. 18-V-136M2	Metro Owners Association	ELEVATOR	GRANT
5. 18-V-508M1	Westlake Realty Group, Inc.	ELEVATOR	GRANT
6. 23-V-092M1	Open DTHLA RE Holdings, LLC	ELEVATOR	GRANT
7. 26-V-004M1	SyNoor, LLC	ELEVATOR	GRANT
8. 26-V-162	UCSF Health	ELEVATOR	GRANT
9. 26-V-175M1	Coombs Street LLC	ELEVATOR	GRANT
10. 26-V-233M1	292 Barham LLC	ELEVATOR	GRANT
11. 26-V-351M1	Logos St Rest Holdings 1, LLC	ELEVATOR	GRANT
12. 26-V-483	Bay Area Rapid Transit District (BART)	ELEVATOR	GRANT
13. 26-V-489	Luis O. Ramallo	ELEVATOR	GRANT
14. 26-V-490	Santa Monica-Malibu Unified School District	ELEVATOR	GRANT
15. 26-V-491	Primestor Norwalk Entertainment, LLC	ELEVATOR	GRANT
16. 26-V-492	15 South Hope Associates, L.P.	ELEVATOR	GRANT
17. 26-V-493	CFT NV Developments LLC	ELEVATOR	GRANT

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
18. 26-V-494	BH Luxury Residences, LLC	ELEVATOR	GRANT
19. 26-V-495	BH Luxury Residences, LLC	ELEVATOR	GRANT
20. 26-V-496	The Board of Trustees of the Leland Stanford Junior University	ELEVATOR	GRANT
21. 26-V-497	GMMR Stone, LLC	ELEVATOR	GRANT
22. 26-V-498	City of Ontario	ELEVATOR	GRANT
23. 26-V-499	Wilton Rancheria Gaming Authority	ELEVATOR	GRANT
24. 26-V-500	Red Tail Multifamily Land Development LLC	ELEVATOR	GRANT
25. 26-V-501	Chino Valley Unified School District	ELEVATOR	GRANT
26. 26-V-502	UCSF Health	ELEVATOR	GRANT
27. 26-V-503	UCSF Health	ELEVATOR	GRANT
28. 26-V-504	Sophia Foundation	ELEVATOR	GRANT
29. 26-V-506	Rainbow Investment Co.	ELEVATOR	GRANT
30. 26-V-507	El Camino Hospital	ELEVATOR	GRANT
31. 26-V-508	Harmony at Cote Vera, LLC	ELEVATOR	GRANT
32. 26-V-509	Harmony at Cote Vera, LLC	ELEVATOR	GRANT
33. 26-V-510	Navajo Road Housing Associates, L.P.	ELEVATOR	GRANT
34. 26-V-511	Harmony at Cote Vera, LLC	ELEVATOR	GRANT
35. 26-V-512	Harmony at Cote Vera, LLC	ELEVATOR	GRANT
36. 26-V-513	LA Sanitation	ELEVATOR	GRANT

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
37. 26-V-517	SPI 80 Grand Broadway, LLC	ELEVATOR	GRANT
38. 26-V-519	MDNI Group LLC	ELEVATOR	GRANT
39. 26-V-520	525 Water Street LP	ELEVATOR	GRANT
40. 26-V-521	The Glen at Heather Farm Walnut Creek CCRC LLC	ELEVATOR	GRANT
41. 26-V-522	SHAC 11 ECR Apartments LLC	ELEVATOR	GRANT
42. 26-V-523	San Mateo County Community College District	ELEVATOR	GRANT
43. 26-V-524	Balboa Park Properties, LLC	ELEVATOR	GRANT
44. 26-V-525	Balboa Park Properties, LLC	ELEVATOR	GRANT
45. 26-V-526	Balboa Park Properties, LLC	ELEVATOR	GRANT
46. 26-V-527	College of the Sequoias	ELEVATOR	GRANT
47. 26-V-528	Long Beach Community College District	ELEVATOR	GRANT
48. 26-V-529	Rise 30th St LP	ELEVATOR	GRANT
49. 26-V-530	DICK’s Sporting Goods, Inc	ELEVATOR	GRANT
50. 26-V-531	Dry Creek Commons L.P.	ELEVATOR	GRANT
51. 26-V-532	Camino de Salud LP	ELEVATOR	GRANT
52. 26-V-533	BC Oregon LLC	ELEVATOR	GRANT
53. 26-V-534	Tule River Tribe Gaming Authority	ELEVATOR	GRANT
54. 26-V-535	Midtown Flats, LP	ELEVATOR	GRANT
55. 26-V-536	TH II Los Angeles 2617 Crenshaw LP	ELEVATOR	GRANT

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
56. 26-V-537	Lone Oak – Los Angeles, L.L.C.	ELEVATOR	GRANT
57. 26-V-538	Eastbank QOZB LLC	ELEVATOR	GRANT
58. 26-V-539	Pacific BMW	ELEVATOR	GRANT
59. 26-V-540	6171 Mission Gorge Owner, LP	ELEVATOR	GRANT
60. 26-V-541	4417 Rutherford Owner, LLC	ELEVATOR	GRANT
61. 26-V-542	US 1902 Wilshire Owner, LLC	ELEVATOR	GRANT

PROPOSED DECISIONS FOR BOARD CONSIDERATION, HEARD ON OCTOBER 28, 2026

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
62. 26-V-316	Sugar Bowl Corporation	Section 3162	GRANT

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application to Modify Permanent Variance by:

Metro Owners Association

Permanent Variance No: 17-V-392M2

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The following person or entity ("Applicant") has applied for a modification of permanent variance from a provision of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Preexisting Permanent Variance No.	Preexisting Variance Holder of Record
17-V-392	Pulte Home Company LLC

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application for Modification of Permanent Variance
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. The Applicant requests modification of the variance holder specified within Board records for each conveyance the subject of previously granted Permanent Variance No. 17-V-392 therewith.
2. The modification application submitted by applicant, declared to be wholly truthful under penalty of perjury by the signatory, states that Metro Owners Association became the owner of the conveyance(s) subject to the existing variance.
3. Cal/OSHA has evaluated the request for modification of person or entity of record holding Permanent Variance No. 17-V-392M2, finds no issue with it, and recommends that the application for modification be granted subject to the same conditions of the Decision and Order in Permanent Variance No. 17-V-392 therewith.
4. The Board finds the declaratory statements of the Applicant signatory to be credible, uncontroverted, and consistent with available, sufficient facts, and of no bearing as to the finding of equivalent occupational health and safety upon which, in substantial part, grant of preexisting Permanent Variance No. 17-V-392 therewith was based.
5. The Board finds the current person or entity having custody of each conveyance the subject of Permanent Variance No. 17-V-392M2, to be:

Metro Owners Association

D. Decision and Order

1. Variance application 17-V-392M2 is conditionally GRANTED, as specified below, such that, within Board records, the person or entity holding Permanent Variance No. 17-V-392 therewith, shall be:

Metro Owners Association

2. Permanent Variance No. 17-V-392 therewith, only being modified as specified in above Decision and Order section 1, is otherwise unchanged and remaining in full force and effect, as hereby incorporated by reference into this Decision and Order of Permanent Variance No. 17-V-392M2.
3. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
4. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 26, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application to Modify Permanent Variance by:

Metro Owners Association

Permanent Variance No: 18-V-077M2

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The following person or entity ("Applicant") has applied for a modification of permanent variance from a provision of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Preexisting Permanent Variance No.	Preexisting Variance Holder of Record
18-V-077	Pulte Home Company LLC

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application for Modification of Permanent Variance
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. The Applicant requests modification of the variance holder specified within Board records for each conveyance the subject of previously granted Permanent Variance No. 18-V-077 therewith.
2. The modification application submitted by applicant, declared to be wholly truthful under penalty of perjury by the signatory, states that Metro Owners Association became the owner of the conveyance(s) subject to the existing variance.
3. Cal/OSHA has evaluated the request for modification of person or entity of record holding Permanent Variance No. 18-V-077M2, finds no issue with it, and recommends that the application for modification be granted subject to the same conditions of the Decision and Order in Permanent Variance No. 18-V-077 therewith.
4. The Board finds the declaratory statements of the Applicant signatory to be credible, uncontroverted, and consistent with available, sufficient facts, and of no bearing as to the finding of equivalent occupational health and safety upon which, in substantial part, grant of preexisting Permanent Variance No. 18-V-077 therewith was based.
5. The Board finds the current person or entity having custody of each conveyance the subject of Permanent Variance No. 18-V-077M2, to be:

Metro Owners Association

D. Decision and Order

1. Variance application 18-V-077M2 is conditionally GRANTED, as specified below, such that, within Board records, the person or entity holding Permanent Variance No. 18-V-077 therewith, shall be:

Metro Owners Association

2. Permanent Variance No. 18-V-077 therewith, only being modified as specified in above Decision and Order section 1, is otherwise unchanged and remaining in full force and effect, as hereby incorporated by reference into this Decision and Order of Permanent Variance No. 18-V-077M2.
3. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
4. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application to Modify Permanent Variance by:

Metro Owners Association

Permanent Variance No: 18-V-135M2

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The following person or entity ("Applicant") has applied for a modification of permanent variance from a provision of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Preexisting Permanent Variance No.	Preexisting Variance Holder of Record
18-V-135	Pulte Home Company LLC

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application for Modification of Permanent Variance
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. The Applicant requests modification of the variance holder specified within Board records for each conveyance the subject of previously granted Permanent Variance No. 18-V-135 therewith.
2. The modification application submitted by applicant, declared to be wholly truthful under penalty of perjury by the signatory, states that Metro Owners Association became the owner of the conveyance(s) subject to the existing variance.
3. Cal/OSHA has evaluated the request for modification of person or entity of record holding Permanent Variance No. 18-V-135M2, finds no issue with it, and recommends that the application for modification be granted subject to the same conditions of the Decision and Order in Permanent Variance No. 18-V-135 therewith.
4. The Board finds the declaratory statements of the Applicant signatory to be credible, uncontroverted, and consistent with available, sufficient facts, and of no bearing as to the finding of equivalent occupational health and safety upon which, in substantial part, grant of preexisting Permanent Variance No. 18-V-135 therewith was based.
5. The Board finds the current person or entity having custody of each conveyance the subject of Permanent Variance No. 18-V-135M2, to be:

Metro Owners Association

D. Decision and Order

1. Variance application 18-V-135M2 is conditionally GRANTED, as specified below, such that, within Board records, the person or entity holding Permanent Variance No. 18-V-135 therewith, shall be:

Metro Owners Association

2. Permanent Variance No. 18-V-135 therewith, only being modified as specified in above Decision and Order section 1, is otherwise unchanged and remaining in full force and effect, as hereby incorporated by reference into this Decision and Order of Permanent Variance No. 18-V-135M2.
3. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
4. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application to Modify Permanent Variance by:

Metro Owners Association

Permanent Variance No: 18-V-136M2

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The following person or entity ("Applicant") has applied for a modification of permanent variance from a provision of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Preexisting Permanent Variance No.	Preexisting Variance Holder of Record
18-V-136	Pulte Home Company LLC

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application for Modification of Permanent Variance
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. The Applicant requests modification of the variance holder specified within Board records for each conveyance the subject of previously granted Permanent Variance No. 18-V-136 therewith.
2. The modification application submitted by applicant, declared to be wholly truthful under penalty of perjury by the signatory, states that Metro Owners Association became the owner of the conveyance(s) subject to the existing variance.
3. Cal/OSHA has evaluated the request for modification of person or entity of record holding Permanent Variance No. 18-V-136M2, finds no issue with it, and recommends that the application for modification be granted subject to the same conditions of the Decision and Order in Permanent Variance No. 18-V-136 therewith.
4. The Board finds the declaratory statements of the Applicant signatory to be credible, uncontroverted, and consistent with available, sufficient facts, and of no bearing as to the finding of equivalent occupational health and safety upon which, in substantial part, grant of preexisting Permanent Variance No. 18-V-136 therewith was based.
5. The Board finds the current person or entity having custody of each conveyance the subject of Permanent Variance No. 18-V-136M2, to be:

Metro Owners Association

D. Decision and Order

1. Variance application 18-V-136M2 is conditionally GRANTED, as specified below, such that, within Board records, the person or entity holding Permanent Variance No. 18-V-136 therewith, shall be:

Metro Owners Association

2. Permanent Variance No. 18-V-136 therewith, only being modified as specified in above Decision and Order section 1, is otherwise unchanged and remaining in full force and effect, as hereby incorporated by reference into this Decision and Order of Permanent Variance No. 18-V-136M2.
3. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
4. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application to Modify Permanent Variance by:

Westlake Realty Group, Inc.

Permanent Variance No: 18-V-508M1

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The following person or entity ("Applicant") has applied for a modification of permanent variance from a provision of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Preexisting Permanent Variance No.	Applicant Name	Preexisting Variance Address of Record
18-V-508	Westlake Realty Group, Inc.	111 East Gish Road San Jose, CA

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.

2. At the hearing, Staci Reim, with InnVentures, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application for Modification of Permanent Variance
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. The Applicant requests modification of the address of the unchanging variance location specified within Board records for each conveyance the subject of previously granted Permanent Variance No. 18-V-508 therewith.
2. The Application declared to be wholly truthful under penalty of perjury by Application signatory, states facts upon which reasonably may be based a finding that the address, specified in the records of the Board, at which Permanent Variance No. 18-V-508M1 is in effect, in fact is more completely, and correctly the different combination of addresses specified in below subsection D.1.
3. Cal/OSHA has evaluated the request for modification of variance location address, finds no issue with it, and recommends that the application for modification be granted subject to the same conditions of the Decision and Order in Permanent Variance No. 18-V-508 therewith.
4. The Board finds the above subpart C.2 referenced declaration to be credible, uncontroverted, and consistent with available, sufficient facts, and of no bearing as to the finding of equivalent occupational health and safety upon which Grant of preexisting Permanent Variance No. 18-V-508 therewith was based.
5. The Board finds the correct address by which to designate the location of each conveyance the subject of Permanent Variance No. 18-V-508, to be:

101 E. Gish Rd.
San Jose, CA

D. Decision and Order

1. Permanent Variance Application No. 18-V-508M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each conveyance being the subject of Permanent Variance No. 18-V-508 therewith, shall have the following address designation:

101 E. Gish Rd.
San Jose, CA

2. Permanent Variance No. 18-V-508 therewith, being only modified as to the subject location address specified in above Decision and Order section 1, is otherwise unchanged and remaining in full force and effect, as hereby incorporated by reference into this Decision and Order of Permanent Variance No. 18-V-508M1.
3. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.

4. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 22, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application to Modify Permanent Variance by:

Open DTHLA RE Holdings, LLC

Permanent Variance No: 23-V-092M1

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The following person or entity ("Applicant") has applied for a modification of permanent variance from a provision of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Preexisting Permanent Variance No.	Preexisting Variance Holder of Record	Preexisting Variance Address of Record
23-V-092	Hodla, LLC	4011 S. Hoover St. Los Angeles, CA

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.

2. At the hearing, Pete Cuellar, with SCHINDLER ELEVATOR CORPORATION, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application for Modification of Permanent Variance
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. The Applicant requests modification of the address of the unchanging variance location specified within Board records for each conveyance the subject of previously granted Permanent Variance No. 23-V-092 therewith.
2. The Applicant requests modification of the variance holder specified within Board records for each conveyance the subject of previously granted Permanent Variance No. 23-V-092 therewith.
3. The modification application submitted by applicant, declared to be wholly truthful under penalty of perjury by the signatory, states facts upon which reasonably may be based a finding that the Open DTHLA RE Holdings, LLC became the owner of the conveyance(s) subject to the existing variance, and that the address, specified in the records of the Board, at which Permanent Variance 23-V-092 is in effect, in fact is more completely, and correctly the different combination of addresses specified in below subsection C.6.
4. Cal/OSHA has evaluated the aforementioned request for modification, finds no issue with it, and recommends that the application for modification be granted subject to the same conditions of the Decision and Order in Permanent Variance No. 23-V-092 therewith.
5. The Board finds the declaratory statements of the Applicant signatory to be credible, uncontroverted, and consistent with available, sufficient facts, and of no bearing as to the finding of equivalent occupational health and safety upon which, in substantial part, grant of preexisting Permanent Variance No. 23-V-092 therewith was based.
6. The Board finds the correct address by which to designate the location of each conveyance the subject of Permanent Variance No. 23-V-092M1, to be:

   800 W. Martin Luther King Jr. Blvd.
   Los Angeles, CA

7. The Board finds the current person or entity having custody of each conveyance the subject of Permanent Variance No. 23-V-092M1, to be:

   Open DTHLA RE Holdings, LLC

D. Decision and Order

1. Permanent Variance Application No. 23-V-092M1 is conditionally GRANTED, as specified below, such that, without change in variance location, each conveyance being the subject of Permanent Variance No. 23-V-092 therewith, shall have the following address designation:

   800 W. Martin Luther King Jr. Blvd.
   Los Angeles, CA

2. Additionally, the person or entity holding Permanent Variance No(s). 23-V-092M1 and No. 23-V-092 therewith, shall be:

Open DTHLA RE Holdings, LLC

3. Permanent Variance No. 23-V-092 therewith, being only modified as specified in above Decision and Order sections 1 and 2, is otherwise unchanged and remaining in full force and effect, as hereby incorporated by reference into this Decision and Order of Permanent Variance No. 23-V-092M1.
4. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
5. The Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application to Modify Permanent Variance by:

SyNoor, LLC

Permanent Variance No: 26-V-004M1

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The following person or entity ("Applicant") has applied for a modification of permanent variance from a provision of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Preexisting Permanent Variance No.	Applicant Name	Preexisting Variance Address of Record
26-V-004	SyNoor, LLC	410 Noor Ave. South San Francisco, CA

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.

2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application for Modification of Permanent Variance
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. The Applicant requests modification of the address of the unchanging variance location specified within Board records for each conveyance the subject of previously granted Permanent Variance No. 26-V-004 therewith.
2. The Application declared to be wholly truthful under penalty of perjury by Application signatory, states facts upon which reasonably may be based a finding that the address, specified in the records of the Board, at which Permanent Variance No. 26-V-004M1 is in effect, in fact is more completely, and correctly the different combination of addresses specified in below subsection D.1.
3. Cal/OSHA has evaluated the request for modification of variance location address, finds no issue with it, and recommends that the application for modification be granted subject to the same conditions of the Decision and Order in Permanent Variance No. 26-V-004 therewith.
4. The Board finds the above subpart C.2 referenced declaration to be credible, uncontroverted, and consistent with available, sufficient facts, and of no bearing as to the finding of equivalent occupational health and safety upon which Grant of preexisting Permanent Variance No. 26-V-004 therewith was based.
5. The Board finds the correct address by which to designate the location of each conveyance the subject of Permanent Variance No. 26-V-004, to be:

1440 Huntington Ave., Building B
South San Francisco, CA

D. Decision and Order

1. Permanent Variance Application No. 26-V-004M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each conveyance being the subject of Permanent Variance No. 26-V-004 therewith, shall have the following address designation:

1440 Huntington Ave., Building B
South San Francisco, CA

2. Permanent Variance No. 26-V-004 therewith, being only modified as to the subject location address specified in above Decision and Order section 1, is otherwise unchanged and remaining in full force and effect, as hereby incorporated by reference into this Decision and Order of Permanent Variance No. 26-V-004M1.
3. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives

are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.

4. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance regarding: UCSF Health	OSHSB File No.: See table in Jurisdictional and Procedural Matters PROPOSED DECISION Hearing Date: October 21, 2026

A. Jurisdictional and Procedural Matters

1. Each below listed applicant ("Applicant") has applied for permanent variance from certain provisions of the Elevator Safety Orders, found at title 8, of the California Code of Regulations[1], with respect to a conveyance, or conveyances, in the listed quantity, at the listed location:

Variance No.	Applicant Name	Variance Location Address	No. of Elevators
26-V-162	UCSF Health	UCSF Health Helen Diller Hospital 501 Parnassus Avenue San Francisco, CA	25

2. This proceeding is conducted in accordance with Labor Code section 143, and section 401, et. seq. of the Board's procedural regulations.

3. This hearing was held on October 21, 2026, via videoconference, by the Occupational Safety and Health Standards Board ("Board"), with Hearing Officer Michelle Iorio, hearing the matter on its merit, as a basis of proposed decision to be advanced to the Board for its consideration, in accordance with section 426.

4. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

5. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	**Description of Exhibit**
PD-1	Application for Permanent Variance
PD-2	OSHSB Notice of Hearing

[1] Unless otherwise noted, all references are to California Code of Regulations, title 8.

PD-4	Cal/OSHA Review of Variance Application
PD-5	Review Draft-1 Proposed Decision

6. Official notice taken of the Board's rulemaking records, and variance decisions concerning the safety order requirements from which variance is requested. At close of hearing on October 21, 2026, the record was closed, and the matter taken under submission by the Hearing Officer.

B. Relevant Safety Order Provisions

Applicant seeks a permanent variance from section 3141 [ASME A17.1-2004, section 2.8.1.2] of the Elevator Safety Orders, with respect to non-elevator equipment located in the hoistway.

Section 3141 [ASME A17.1-2004, section 2.8.1.2] states:

> Only such electrical wiring, raceways, and cables used directly in connection with the elevator, including wiring for signals, for communication with the car, for lighting, heating, air conditioning, and ventilating the car, for fire detecting systems, for pit sump pumps, and for heating and lighting the hoistway and/or machine room shall be permitted to be installed inside the hoistway.

The intent of this code requirement is to eliminate the need for persons, other than elevator personnel, from having access to install or maintain non-elevator wiring/equipment in the elevator hoistway.

C. Findings of Fact

Based on the record of this proceeding, the Board finds the following:

1. The Applicant proposes to install an Emergency Responder Radio Coverage (ERRC) system in the elevator hoistway of 25 elevators at 501 Parnassus Avenue, San Franscico, CA.

2. The Applicant asserts that the San Francisco Fire Code and the San Francisco Fire Department is requiring that an ERRC system be installed in their existing building to provide full-strength emergency radio coverage in all elevator cars throughout the hoistway.

3. In the event of an emergency, the ERRC system will provide greatly improved communications, and will result in improved safety for the building occupants and first responders.

4. The Applicant proposes to achieve this through a radiating coaxial cable antenna, within a non-metallic conduit, that is securely attached to the inside of the elevator hoistway enclosure.

5. Applicant has indicated that NO ERRC devices will be installed within the elevator cab.

6. Applicant has indicated that the proposed antennae will be installed, maintained and replaced in a manner that will prevent employees from having to enter the hoistway.

7. Applicant has indicated that the installation of the conduit which will house the coaxial cable will be installed or coordinated by the elevator installer. Such measures limit the exposure of the subject employees.

8. The Board has previously heard and adopted Permanent Variance No. 22-V-673 which relates to ERRC units.

D. **Conclusive Findings**

A preponderance of the evidence establishes that Applicant's proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

The Application being the subject of this proceeding, per the table in Jurisdictional and Procedural Matters, section 1 above, is conditionally GRANTED, to the extent that the Applicant shall be issued permanent variance from section 3141 subject to the following conditions and limitations:

Elevator Safety Orders:

- Non-elevator equipment: 2.8.1.2 (Only to the extent necessary to permit the installation of a radiating coaxial cable antenna installed within the elevator hoistway enclosure, to provide Emergency Responder Radio Coverage (ERRC)).

Conditions:

Emergency Responder Radio Coverage (ERRC) equipment shall be permitted to be installed within the elevator hoistway for exclusive use by emergency responders. It shall be designed, installed, and maintained so as not to create an interference with elevator operation, inspection, repair, or maintenance.

1. ERRC equipment in the hoistway shall be limited to radiating coaxial cable(s). Prior to installation of radiating coaxial cable(s) in the hoistway, layout drawings shall be

coordinated with the elevator installer, indicating acceptable installation locations for the radiating coaxial cable(s).

2. ERRC equipment and associated wiring shall not be installed in elevator machinery spaces, machine rooms, and control rooms, except as permitted in this section.

3. Radiating coaxial cable(s) shall be installed per the manufacturer's installation instructions in a non-metallic conduit originating outside the hoistway.

    a. Multiple radiating coaxial cable(s) shall be permitted in the hoistway.

    b. The installation of radiating coaxial cable(s) shall not reduce required horizontal clearances.

    c. Radiating coaxial cable(s) shall be supported at the upper point of entry into the conduit external to the hoistway. The lower ends of conduit(s) terminating in the hoistway shall be capped or closed.

    d. Radiating coaxial cable(s) shall only be installed, removed, and serviced from outside the hoistway.

4. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.

5. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.

6. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426, subdivision (b), the Proposed Decision, is submitted to the Board for consideration of adoption.

DATED: October 29, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application to Modify Permanent Variance by: Coombs Street LLC	Permanent Variance No.: 26-V-175M1 **PROPOSED DECISION** Hearing Date: October 21, 2026 Location: Zoom

A. Subject Matter

1. The following person or entity ("Applicant") has applied for a modification of permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, references are to the California Code of Regulations, title 8. The relevant information is as follows:

Preexisting Permanent Variance No.	Preexisting Variance Elevator Type Granted	Preexisting Number of Suspension Ropes Granted for Third Conveyance	Preexisting Number of Landings for Third Conveyance
26-V-175	Kone MonoSpace 500 Elevators	8	3

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et. seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026, via videoconference, by the Board, with Hearing Officer, Michelle Iorio, both presiding and hearing the matter on its merit, in accordance with section 426.

2. At the hearing, Fuei Saetern with KONE INC., appeared on behalf of the Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD-1	Application for modification of Permanent Variance
PD-2	OSHSB Notice of Hearing
PD-3	Cal/OSHA Review of Variance Application
PD-4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. On August 14, 2026, the Applicant's representative, Fuei Saetern of Kone Inc., submitted an application to modify the existing permanent variance to indicate that Seven (7) suspension ropes would be provided for the third conveyance.

2. Applicant is requesting to modify the permanent variance to correct inaccurate elevator identifications, maximum speed and elevator suspension information, regarding the number or ropes, contained in the original variance application. The correct number of suspension ropes should have been represented as Seven (7) for the third conveyance.

3. As a result of this change, the maximum suspended load listed in the existing permanent variance decision would need to be similarly reduced to reflect the use of fewer suspension ropes.

4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested modification of permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Decision and Order

1. Permanent Variance Application No. 26-V-175M1 is conditionally GRANTED, thereby modifying Board records, such that each elevator being the subject of Permanent Variance Nos. 26-V-175 and 26-V-175M1 is subject to the same conditions stated in

Permanent Variance No. 26-V-175, except as modified below:

Revisions exclusive to Permanent Variance No.26-V-175, Decision and Order, Appendix 1:

Monospace 500 Suspension Ropes Appendix 1 Table				
OSHB Variance No.	Elevator ID	Minimum Quantity of Ropes (Per Condition 3)	Maximum Speed in Feet Per Minute (Per Condition 6)	Maximum Suspended Load (Per Condition 7)
26-V-175*M1*	~~HP1~~ ***RP5***	8	350	11,706
26-V-175*M1*	~~HP2~~ ***RP7***	8	350	11,706
26-V-175*M1*	~~HP3~~ ***RP9***	~~8~~ ***7***	~~350~~ ***150***	~~11,706~~ ***12,247***

2. Permanent Variance No. 26-V-175M1, being only modified as to the additional variances sought specified in above Decision and Order, is otherwise unchanged and remaining in full force and effect, as hereby incorporated by reference into this Decision and Order of Permanent Variance No. 26-V-175M1.

3. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.

4. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

Michelle Iorio

Dated: October 28, 2026

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application to Modify Permanent Variance by:

292 Barham, LLC

Permanent Variance No: 26-V-233M1

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The following person or entity ("Applicant") has applied for a modification of permanent variance from a provision of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Preexisting Permanent Variance No.	Applicant Name	Preexisting Variance Address of Record
26-V-233	292 Barham, LLC	300 E. Barham Dr. San Marcos, CA

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application for Modification of Permanent Variance
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. The Applicant requests modification of the address of the unchanging variance location specified within Board records for each conveyance the subject of previously granted Permanent Variance No. 26-V-233 therewith.
2. The Application declared to be wholly truthful under penalty of perjury by Application signatory, states facts upon which reasonably may be based a finding that the address, specified in the records of the Board, at which Permanent Variance No. 26-V-233M1 is in effect, in fact is more completely, and correctly the different combination of addresses specified in below subsection D.1.
3. Cal/OSHA has evaluated the request for modification of variance location address, finds no issue with it, and recommends that the application for modification be granted subject to the same conditions of the Decision and Order in Permanent Variance No. 26-V-233 therewith.
4. The Board finds the above subpart C.2 referenced declaration to be credible, uncontroverted, and consistent with available, sufficient facts, and of no bearing as to the finding of equivalent occupational health and safety upon which Grant of preexisting Permanent Variance No. 26-V-233 therewith was based.
5. The Board finds the correct address by which to designate the location of each conveyance the subject of Permanent Variance No. 26-V-233, to be:

300 Barham Dr.
San Marcos, CA

D. Decision and Order

1. Permanent Variance Application No. 26-V-233M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each conveyance being the subject of Permanent Variance No. 26-V-233 therewith, shall have the following address designation:

300 Barham Dr.
San Marcos, CA

2. Permanent Variance No. 26-V-233 therewith, being only modified as to the subject location address specified in above Decision and Order section 1, is otherwise unchanged and remaining in full force and effect, as hereby incorporated by reference into this Decision and Order of Permanent Variance No. 26-V-233M1.
3. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.

4. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 29, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance By: Sugar Bowl Corporation	OSHSB File No.: 26-V-316 **PROPOSED DECISION** Hearing Date: October 28, 2026

A. **Procedural Matters**

1. On May 14, 2026, Erik Shellman submitted an application for permanent variance on behalf of Sugar Bowl Corporation ("Sugar Bowl" or "Applicant"). The Applicant applied for permanent variance from certain provisions of California Code of Regulations, title 8[1], section 3162 of the Passenger Tramway Safety Orders, and the incorporated reference standard, ANSI B77.1-1982, 1986, 1988 addenda, section 3.1.4.5.2. Additionally, ANSI B77.1-1982, 1986, 1988 addenda, section 2.1.4.1.1 requires new haul rope (wire rope) to have a safety factor of 5.0.

2. This proceeding is conducted in accordance with Labor Code Section 143, and section 401, et. seq. of the Board's procedural regulations.

3. The hearing was held on October 28, 2026 by Zoom conference by delegation of the Occupational Safety and Health Standards Board (Board). The hearing officer was Kelly Chau.

4. Appearing for the Applicant was Erik Shellman, Director of Lifts, and Tom Brunner, Assistant Patrol Director. Cha Yang, Senior Safety Engineer, appeared on behalf of the Board, and Scott Prather, Senior Safety Engineer for the Amusement Rides and Tramway Unit appeared for the Division of Occupational Safety and Health (Cal/ OSHA).

[1] Unless otherwise stated, all references are to the California Code of Regulations, title 8.

5. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence: Jurisdictional Documents ("Application") as Exhibit PD-1, Cal/OSHA Review of Application as Exhibit PD-2, Board Staff Review of Application as Exhibit PD-3, Notice of Hearing as Exhibit PD-4, and official notice taken of the Board's rulemaking records, and variance decisions concerning the safety order requirements from which variance is requested.

B. **Findings of Fact**

Based upon the record of this proceeding, the Board finds the following:

1. The Applicant requests a permanent variance from section 3162 of the Passenger Tramway Safety Orders, and the incorporated reference standard, ANSI B77.1-1982, 1986, 1988 addenda, section 3.1.4.5.2. This section provides for a conductor to serve gondola cabins with a capacity of more than six passengers. It also requires that evacuation equipment be stored inside the carrier (cabin) of gondolas with a capacity of more than seven passengers.

2. The Applicant seeks a variance to these requirements based on improvements in lift technology recognized by the tramway industry including the ANSI Standard Organization that published the 1982 B77 standard. In 1990 ANSI published a revision to the B77 standard eliminating the need for both conductors and evacuation equipment inside each carrier.

3. In 1990, the ANSI B77.1 standard was further revised and reduce the haul rope safety factor from 5.0 to 4.5, eliminated the annual visual inspection requirement, and replaced with a more comprehensive and effective magnetic rope inspection detailed in Annex A of the published standard.

4. Applicant proposes to install a 3,204 foot long Detachable Grip Gondola Passenger Tramway called The Village Gondola at Sugar Bowl Ski Resort located at 629 Sugar Bowl Rd, in Norden, CA.

5. The tramway is manufactured by the Doppelmayr with a maximum of 33 eight passenger cabins on the line at any given time. The total capacity of the lift is 232 passengers. The estimated uphill capacity is 1800 people per hour.

6. The gondola lift is equipped with CWA DG8-CWA-OV Omega-V-8-SR model cabins. These cabins have no internal operator controls but have automatic doors and safety features that prevent riders from being able to open the doors during operation.

7. The cabin doors can be opened from the outside during a rope evacuation. Sugar Bowl's evacuation protocols involve the use of highly trained members of its ski patrol, rather than having a conductor manage emergency situations. Sugar Bowl Patrolers are equipped with a communication system that consists of megaphones. These megaphones allow staff to communicate with passengers inside each gondola. Additionally, each cabin will be equipped with signage that provides emergency contact information for patrons to use in the event of an emergency.

8. CCR Section 3162 (a) of the Passenger Tramway Safety Orders **[ANSI B77.1-1982 and 1986, 1988 addenda, Section 3.1]** states in part: **"3.1.4.5.2 Gondola.** For cabins having a capacity of more than six passengers, the evacuation equipment shall be located in the carrier." Equipment stored in each individual carrier has potential for damage, abuse, and theft. The applicant purposes carrier evacuation equipment be secured and stored at Patrol Headquarters, the main base of operations and dispatch center for the mountain's ski patrol team responsible for responding to and carrying out a rope evacuation of the Village Lift. This allows easy equipment access by trained staff who conduct rescues, and removes the possibility of equipment being damaged, vandalized, or stolen by passengers in the gondolas.

9. Sugar Bowl's Emergency and Evacuation Plan (revised 5/2026) includes detailed evacuation action plans involving highly skilled and trained staff. The staff can provide medical or life safety intervention as needed and are qualified to inspect and utilize rope evacuation equipment. Our Emergency and Evacuation Plan also outlines procedures for communicating with passengers in cabins.

10. Cal/OSHA requested additional information from the applicant pertaining to the training for staff responsible for executing an evacuation including frequency of initial and refresher training to include anticipated training times and frequency of evacuation drills. The applicant provided the requested information via supplemental document that references the National Ski Area Association Aerial Evacuation Resource Guide and details the initial training, annual refresher training, training rotation and projected outcomes of training sessions. Additionally, The Sugar Bowl Corporation contracts with Peak Rescue, a nationally recognized technical rescue training organization specializing in rope rescue, rope access, aerial tramway rescue, fall protection, and ski lift evacuations.

11. The lift will have 2 backup systems: First, a generator with an Automatic Transfer Switch (ATS) that will allow for full operation in the event of a power outage. Second, a tertiary diesel power unit that hydrostatically drives a ring gear on the drive bullwheel. These two systems provide redundancy to normal operating systems and allow our staff to run the lift in a variety of situations before initiating a rope evacuation.

12. The Applicant also proposes a reduced safety factor of 4.5 for new haul rope used on The Village gondola. Existing regulation and the associated ANSI standard require haul ropes to have a minimum static factor of safety of 5, when new. Additionally, the Applicant proposes the use of a magnetic rope testing method in leu of the visual inspection requirement specified in ANSI B77.1-1982 and 1986, 1988 addenda. The use of magnetic rope testing (MRT) was included in the ANSI B77.1-1990 standard and provides a greater level of inspection over the previous visual inspection requirements of ANSI B77.1-1982 and 1986, 1988 addenda.

13. MRT is valuable to detect defects and deterioration in steel wire ropes that are not possible with visual inspections. MRT inspection has the capability of detecting broken wires, wear, and corrosion of the internal portions of the rope. Additionally, MRT equipment provides users with a digital record of the haul rope's condition that can be used to track the rope condition over time. This method of rope inspection is

vastly superior to visual inspection and clearly justifies the 4.5 rope factor of safety when compared to the 5.0 factor of safety and visual inspections specified in the ANSI B77.1-1982 standard.

14. The Board has granted similar variances in the past, including Homewood Mountain Resort, Permanent Variance No. 22-V-657, Palisades Tahoe Ski Holdings, LLC, Permanent Variance No. 21-V-208, and Treasury Wine Estate Americas Company dba Sterling Vineyards, Permanent Variance No. 23-V-234.

C. **Conclusive Findings**

A preponderance of the evidence supports the finding that Applicant's proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Passenger Tramway Safety Orders from which variance is being sought.

D. **Decision and Order**

The Application for Permanent Variance of Sugar Bowl Corporation, OSHSB File No. 26-V-316, is conditionally GRANTED subject to the following conditions and limitations:

1. Applicant shall document, implement and maintain an evacuation and rescue plan in compliance with ANSI B77.1-1982 and section 3156.

2. All tramway employees shall be properly trained in the procedures necessary in order to effectively communicate instructions to the cabin passengers and execute an evacuation. Initial training shall be conducted prior to commencing operation and refresher training shall occur no less than yearly. All training shall be documented and documentation shall be made available to Cal/OSHA upon request.

3. The evacuation equipment and procedures, including an actual test at the most difficult location, shall be demonstrated to the satisfaction of Cal/OSHA, at the time of the acceptance testing for final design capacity.

4. In the event of an evacuation from any part of the tramway, the Applicant's ANSI B77.1-1982, and section 3156, compliant evacuation rescue plan, shall be followed and implemented.

5. All cabin doors and locking mechanisms shall be inspected and maintained per the manufacturer's maintenance procedures. Any door found to not be functioning as intended shall be removed from service and not used until the condition is corrected, the cabin re-inspected and found fit for use.

6. Each cabin shall have instructions posted informing passengers of what to expect in the event of an interruption in operation. The posting shall include the following content:

CAR NUMBER *[Specified]*
IN CASE OF EMERGENCY
OR FOR INSTRUCTIONS AND INFORMATION IN THE EVENT OF STOPPAGE
PLEASE CALL *[Designated Phone number]*

7. Evacuation equipment shall be located in each terminal from which evacuation teams will stage.

8. Any company performing inspections, maintenance, servicing or testing the tramway shall be provided a copy of this variance decision.

9. Cal/OSHA shall be notified when the tramway is ready for acceptance testing for final design capacity, and the Division shall witness the testing before the tramway is operated for public use.

10. Magnetic rope testing of the haul rope shall be conducted and documented in accordance with ANSI B77.1-2017. These documents shall be made available to Cal/OSHA upon request.

Dated: October 28, 2026

Kelly Chau, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application to Modify Permanent Variance by:

Logos St Rest Holdings 1, LLC

Permanent Variance No: 26-V-351M1

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The following person or entity ("Applicant") has applied for a modification of permanent variance from a provision of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Preexisting Permanent Variance No.	Applicant Name	Preexisting Variance Address of Record
26-V-351	Logos St Rest Holdings 1, LLC	706 W. 85th St. Los Angeles, CA

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application for Modification of Permanent Variance
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. The Applicant requests modification of the address of the unchanging variance location specified within Board records for each conveyance the subject of previously granted Permanent Variance No. 26-V-351 therewith.
2. The Application declared to be wholly truthful under penalty of perjury by Application signatory, states facts upon which reasonably may be based a finding that the address, specified in the records of the Board, at which Permanent Variance No. 26-V-351M1 is in effect, in fact is more completely, and correctly the different combination of addresses specified in below subsection D.1.
3. Cal/OSHA has evaluated the request for modification of variance location address, finds no issue with it, and recommends that the application for modification be granted subject to the same conditions of the Decision and Order in Permanent Variance No. 26-V-351 therewith.
4. The Board finds the above subpart C.2 referenced declaration to be credible, uncontroverted, and consistent with available, sufficient facts, and of no bearing as to the finding of equivalent occupational health and safety upon which Grant of preexisting Permanent Variance No. 26-V-351 therewith was based.
5. The Board finds the correct address by which to designate the location of each conveyance the subject of Permanent Variance No. 26-V-351, to be:

708 W. 85th St.
Los Angeles, CA

D. Decision and Order

1. Permanent Variance Application No. 26-V-351M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each conveyance being the subject of Permanent Variance No. 26-V-351 therewith, shall have the following address designation:

708 W. 85th St.
Los Angeles, CA

2. Permanent Variance No. 26-V-351 therewith, being only modified as to the subject location address specified in above Decision and Order section 1, is otherwise unchanged and remaining in full force and effect, as hereby incorporated by reference into this Decision and Order of Permanent Variance No. 26-V-351M1.
3. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.

4. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 29, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance by: Bay Area Rapid Transit District (BART)	Permanent Variance No.: 26-V-483 **PROPOSED DECISION** Hearing Date: October 21, 2026 Location: Zoom

A. Subject Matter:

1. Bay Area Transit District (Applicant or BART) has applied for a permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations, with respect to a conveyance, or conveyances, at the listed location, with the listed identification numbers:

Conveyance Address	**Elevator Identification**
Embarcadero BART Station, 298 Market St. San Francisco, CA	62 (existing)
Montgomery St. BART Station, 598 market Street, San Francisco, CA	52 & 53 (existing)
Powell St. BART Station, 899 Market Street, San Francisco, CA	54 & 55 (existing)
Civic Center / UN Plaza BART Station, 1150 Market Street, San Francisco, CA	56 & 57 (existing)
Glen Park BART Station, 2901 Diamond St, San Francisco, CA	37 (existing)
Downtown Berkeley BART Station, 2160 Shattuck Ave., Berkeley, CA	44 & 45 (existing)
Coliseum BART Station 2700 San Leandro St., Oakland, CA	3 & 30 (existing)

Pittsburg / Bay Point BART Station 1700 West Leland Road, Pittsburg, CA	93 & 94 (existing)
16th St. Mission BART Station 2000 Mission Street, San Francisco, CA	33 & 34 (existing)
Bay Fair BART Station 15242 Hesperian Blvd., San Leandro, CA	6 (existing)

2. The relevant safety order requirements are set out within California Code of Regulations, Title 8, Section 3141incorporating ASME A17.1-2004, Safety Code for Elevators and Escalators, except sections 1.1.3, 2.2.2.5, 2.11.1.2, 2.11.1.4, 2.12.6, 2.14.2.2(f), and 2.14.2.6.[1]

B. Procedural:

1. On July 29, 2026, Kevin Reeg, representing the Applicant, applied for a permanent variance from the provisions of the Elevator Safety Orders, Section 3141

2. Applicant seeks a variance with respect to the alteration of seventeen (17) existing elevators as described in A.1, above.

3. Applicant seeks to provide glass panels in elevator doors, providing an area of glass that is less than that required by the Group IV ESO, while still allowing for an unobstructed view both into and out of the elevator cab. The Applicant's proposed reduction in total area of glass, in hoistway and elevator glass doors, is similar to installations for which a permanent variance regarding glass elevator doors has been previously granted. (See, Permanent Variance File Nos. 15-V-358 and 19-V-115.)

4. This hearing was held on October 21, 2026 via teleconference, by delegation of the Occupational Safety and Health Standards Board (Board), with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit, as a basis of proposed decision to be advanced to the Board for its consideration, in accordance with section 426.

[1] Unless otherwise noted, all references are to California Code of Regulations,title 8 safety standards.

5. At the hearing, Kevin Reeg, appeared on behalf of Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (Cal/OSHA).

6. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence: permanent variance applications per Section A.1 table as Exhibit PD-1, Notice of Hearing as Exhibit PD-2, Cal/OSHA Review of Application as PD-3, Review Draft 1 Proposed Decision as PD-4, and official notice taken of the Board's rulemaking records and variance decisions concerning the safety order requirements from which variance is sought. Upon close of hearing on October 21, 2026, the record closed and the matter was taken under submission by the Hearing Officer.

C. Relevant Provisions of Elevator Safety Orders. Article 41. Conveyances Covered by ASME A17.1-2004

1. Section 3141describes the scope of the section as follows: "Conveyances covered by ASME A17.1-2004, section 1.1, Scope, and Article 41 of title 8 shall comply with ASME A17.1-2004, Safety Code for Elevators and Escalators, except sections 1.1.3, 2.2.2.5, 2.7.6, 2.11.1.2, 2.11.1.4, 2.12.6, 2.14.2.2(f), and 2.14.2.6; apart from these exceptions, ASME A17.1-2004 is hereby incorporated by reference."

2. Relevant portions of ASME A17.1-2004, sections 2.11.7.2:

2.11.7.2 Glass Doors. Where provided, glass hoistway doors shall conform to 2.11.7.2.1 through 2.11.7.2.5.
2.11.7.2.1 The glass shall be laminated glass conforming to 16 CFR Part 1201or CAN/CGSB-12.1. Markings as specified in the applicable standard shall be on each separate piece of glass and shall remain visible after installation.
2.11.7.2.2 The glass shall be not less than 60% of the total visible door panel surface area as seen from the landing side of the doors. Door lap shall not be used in calculating glass size.
2.11.7.2.3 In power-operated doors, the glass panel shall be substantially flush with the surface of the landing side of the door.

2.11.7.2.4 A nonglass edge shall be provided on the leading edge of the door panel.

2.11.7.2.5 The glass door shall conform to 2.11.11.5.7 for horizontally sliding type entrances, 2.11.12.4 for vertically sliding type entrances, or 2.11.13.3 for swinging entrances.

3. Relevant provisions of ASME A17.1-2004, sections 2.14.5.8.2(b):

2.14.5.8.2 Glass doors, where provided, shall conform to the following requirements:

(b) The glass shall be not less than 60% of the total visible door panel surface area as seen from the car side of the doors. Door lap shall not be used in calculating glass size.

4. ASME A17.1-2004, section 8.7.2.10.1 states as follows: 8.7.2.10.1 General Requirements

(a) Where all new hoistway entrances are installed, they shall conform to 2.11, 2.12, and 2.13.
(b) Where one or more, but not all, new hoistway entrances are installed, they shall conform to 2.11.2 through 2.11.8 and 8.7.2.10.5. The entire installation shall also conform to 2.11.6, 2.12, and 2.13.
(c) Where an alteration is made to any hoistway entrance, it shall conform to 2.11.3, 2.11.5, 2.11.7, 2.11.8, and 8.7.2.10.5. The entire installation shall also
conform to 2.12 and 2.13.
(d) Where an emergency door is added **or** altered, it shall conform to 2.11.1 and 8.7.2.10.5.
(e) Where access openings for cleaning are installed, they shall conform to 2.11.1.4 and 8.7.2.10.5.

D. **Findings of Fact-Based** on the record of this proceeding, the Board finds the following:

1. Applicant intends to install five new elevators and alter one existing elevator in public transit stations that are equipped with hoistway and car doors containing

glass panels. The dimensions of the glass panels do not comply with the Elevator Safety Orders (ESO), which require the glass elements of these doors make up not less than 60% of the visible door panel. (See, ASME A17.1-2004, Sections 2.11.7.2.2 [The glass shall be not less than 60% of the total visible door panel surface area as seen from the landing side of the doors. Door lap shall not be used in calculating glass size.])

2. Applicant requires a permanent variance from the provisions of section 3141 [ASME A17.1-2004, sections 2.11.7.2.2, 2.14.5.8.2(b), 8.7.2.10.1 and 8.7.1.2] regarding the use of glass in elevator hoistway and car doors, the alteration of elevator hoistway doors, and the alteration of car doors.

3. For the request to alter the seventeen (17) existing elevators, both ASME A17.1 sections 8 and 2 are relevant.

E. Conclusive Findings

The above-stated procedural prerequisites, legal authority, and factual findings, as further supported by the documentary record and hearing testimony in this matter, provide a substantive and reasonable basis of conclusion that: (1) Applicant has complied with the statutory and regulatory requirements that must be met before an application for permanent variance may be conditionally granted; and (2) a preponderance of the evidence establishes that Applicant's proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

F. Decision and Order:

Applicant's application for a variance in the matter of file number 26-V-483 is conditionally GRANTED, to the extent Applicant shall be issued permanent variance from California Code Section 3141, incorporating ASME A17.1-2004, subject to the following conditions:

1. The glass portion of the hoistway and car doors shall:

   a. not be less than 26% of the total visible door panel surface.

b. consist of two (2) panels each having nominal dimensions of 10 inches x 60 inches, or two (2) panels each having nominal dimensions of 11 inches x 42 inches, or four (4) panels each having nominal dimensions of 8 inches x 42 inches.
c. not reside within 18 inches vertically from the bottom edge of the door.

2. Any Certified Qualified Conveyance Company (CQCC} elevator contractor) performing inspection, maintenance, servicing or testing of the elevator shall be provided a copy of the variance decision.

3. The Division shall be notified when the elevator is ready for inspection, and the elevator shall be inspected by the Division and a "Permit to Operate" issued before the elevator may be placed in service.

4. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to California Code of Regulations, Title 8, Sections 411.2 and 411.3.

Pursuant to section 426(b}, the Proposed Decision, is hereby submitted to the Occupational Safety and Health Standards Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-489	Luis O. Ramallo	72302 Baker Blvd. Baker, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

    a. The width and thickness in millimeters or inches;

    b. The manufacturer's rated breaking strength in (kN) or (lbf);

    c. The name of the person or organization that installed the flat coated steel belts;

    d. The month and year the flat coated steel belts were installed;

    e. The month and year the flat coated steel belts were first shortened;

    f. The name or trademark of the manufacturer of the flat coated steel belts; and

    g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

    a. The number of belts;

    b. The belt width and thickness in millimeters or inches; and

    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

    b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

    c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

    d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

    e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:
    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Medical Emergency Elevator Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-490	Santa Monica-Malibu Unified School District	STEM Building 2425 16th St. Santa Monica, CA	

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact and Applicable Regulations

1. Applicant requests a permanent variance from section 3041, subdivision (e)(1)(C), which states:

   (1) All buildings and structures constructed after the effective date of this order that are provided with one or more passenger elevators shall be provided with not less than one passenger elevator designed and designated to accommodate the loading and transport of an ambulance gurney or stretcher maximum size 22 ½ in. (572 mm) by 75 in. (1.90 m) in its horizontal position and arranged to serve all landings in conformance with the following:

   ...

   (C) The elevator car shall have a minimum inside car platform of 80 in. (2.03 m) wide by 51 in. (1.30 m) deep.

   The intent of this language is to ensure that there is enough space to accommodate the access and egress of a gurney and medical personnel inside of a medical service elevator.

   This standard is made applicable to Group IV by section 3141.7, subdivision (b), which reads, "Elevators utilized to provide medical emergency service shall comply with Group II, section 3041(e)."

2. Applicant proposes to comply with the requirements of the 2019 California Building Code, section 3002.4.1a in the design of its medical emergency service elevator. That section requires:
   The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

   The purpose of this requirement is to ensure that an elevator designated for emergency medical service will accommodate a minimum of two emergency personnel with an ambulance gurney or stretcher.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A.1 table shall have permanent variances from sections 3041, subdivision (e)(1)(C) and 3141.7, subdivision (b) subject of the following conditions:

1. All medical emergency service elevator(s) shall comply with the requirements of the 2019 California Building Code section 3002.4.1a:

   > The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

2. All medical emergency service elevator(s) shall be identified in the building construction documents in accordance with the 2019 California Building Code, section 3002.4a.
3. Dimensional drawings and other information necessary to demonstrate compliance with the conditions of this permanent variance decision shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).
4. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing the elevators shall be provided a copy of this variance decision.
5. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
6. Applicant shall notify its employees and their authorized representative, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
7. This Decision and Order shall remain in effect unless duly modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with then in effect administrative procedures of the Board.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

KONE Monospace 500 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-491	Primestor Norwalk Entertainment, LLC	12708 Norwalk Blvd. Norwalk, CA	3

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each respective Applicant intends to utilize the KONE, Inc. Monospace 500 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

   2.20.4 Minimum Number and Diameter of Suspension Ropes

   …The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.
5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 500 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

   2.18.5.1 Material and Factor of Safety.

   … [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5…
10. The Board takes notice of section 3141.7, subpart (a)(10):

    A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to

activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).

13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.

14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).

15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1-2004, section 2.20.3:

$$f = \frac{(S \times N)}{W}$$ *where:*

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

f = the factor of safety from Table 2.20.3

16. ASME A17.1-2010 sections 2.20.3 and 2.20.4 utilize the same formula, but provide for use of suspension ropes having a diameter smaller than 9.5 mm, under specified conditions, key among them being that use of ropes having a diameter of between 8 mm to 9.5 mm be engineered with a factor of safety of 12 or higher This is a higher minimum factor of safety than that proposed by Applicant but a minimum recommended by Cal/OSHA as a condition of variance necessary to the achieving of safety equivalence to 9.5 mm rope

17. Cal/OSHA is in accord with Applicant, in proposing as a condition of safety equivalence, that periodic physical examination of the wire ropes be performed to confirm the ropes continue to meet the criteria set out in the (Application attachment) *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators*. Adherence to this condition will provide an additional assurance of safety equivalence, regarding smaller minimum diameter suspension rope outer wire performance over the course of its service life.

18. Applicant requests a permanent variance from section 3041, subdivision (e)(1)(C), which states:

    (1) All buildings and structures constructed after the effective date of this order that are provided with one or more passenger elevators shall be provided with not less than one passenger elevator designed and designated to accommodate the loading and transport of an ambulance gurney or stretcher maximum size 22 ½ in. (572 mm) by 75 in. (1.90 m) in its horizontal position and arranged to serve all landings in conformance with the following:

    ...

    (C) The elevator car shall have a minimum inside car platform of 80 in. (2.03 m) wide by 51 in. (1.30 m) deep.

    The intent of this language is to ensure that there is enough space to accommodate the access and egress of a gurney and medical personnel inside of a medical service elevator.

    This standard is made applicable to Group IV by section 3141.7, subdivision (b), which reads, "Elevators utilized to provide medical emergency service shall comply with Group II, section 3041(e)."

19. Applicant proposes to comply with the requirements of the 2019 California Building Code, section 3002.4.1a in the design of its medical emergency service elevator. That section requires:

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    The purpose of this requirement is to ensure that an elevator designated for emergency medical service will accommodate a minimum of two emergency personnel with an ambulance gurney or stretcher.

20. Cal/OSHA, by way of written submission to the record (Exhibit PD3), and stated position at hearing, is of the well informed opinion that grant of permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each Application being the subject of this proceeding, per above section A.1 table, is conditionally GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 500 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room/space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC) section 3002.4.1a:

       The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevator(s) shall be identified in the building construction documents in accordance with the 2019 California Building Code, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.

15. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

APPENDIX 1

File Number	Elev ID	Minimum Suspension Ropes Per Elevator	Maximum Suspended Weight Per Elevator	Maximum Speed	Rated Capacity
26-V-491	3	8	11706	350	3500
26-V-491	4	8	11706	350	3500
26-V-491	5	8	11706	350	3500

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-492	15 South Hope Associates, L.P.	15 South Hope Ave. Santa Barbara, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

    a. The width and thickness in millimeters or inches;

    b. The manufacturer's rated breaking strength in (kN) or (lbf);

    c. The name of the person or organization that installed the flat coated steel belts;

    d. The month and year the flat coated steel belts were installed;

    e. The month and year the flat coated steel belts were first shortened;

    f. The name or trademark of the manufacturer of the flat coated steel belts; and

    g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

    a. The number of belts;

    b. The belt width and thickness in millimeters or inches; and

    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

    b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

    c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

    d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

    e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:
    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-493	CFT NV Developments LLC	168 N. Halstead St. Pasadena, CA	3

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

    a. The width and thickness in millimeters or inches;

    b. The manufacturer's rated breaking strength in (kN) or (lbf);

    c. The name of the person or organization that installed the flat coated steel belts;

    d. The month and year the flat coated steel belts were installed;

    e. The month and year the flat coated steel belts were first shortened;

    f. The name or trademark of the manufacturer of the flat coated steel belts; and

    g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

    a. The number of belts;

    b. The belt width and thickness in millimeters or inches; and

    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

    b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

    c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

    d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

    e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:
    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Mitsubishi Elevators (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-494	BH Luxury Residences, LLC	9880 Wilshire Blvd. Beverly Hills, CA	3

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Matt Jaskiewicz, with MITSUBISHI ELECTRIC US, INC., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each section A table specified Applicant intends to utilize Mitsubishi elevators at the location and in the number stated in the table in Item A1. The installation contracts for these elevators were signed on or after May 1, 2008, thus making the elevators subject to the Group IV Elevator Safety Orders.
2. The Board takes official notice and incorporates herein, Subsections D.3 through D.5 of the February 20, 2014, Decision of the Board in Permanent Variance File No. 13-V-270.
3. As reflected in the record of this matter, including Cal/OSHA evaluation as PD-3, and testimony at hearing, it is the professionally informed opinion of Cal/OSHA, that grant of requested variance, subject to conditions and limitations in substantial conforming with those set out per below Decision and Order, will provide Occupational Safety and Health equivalent or superior to that provided by the safety order requirements from which variance is sought.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicant's proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A.1 table shall have permanent variances from sections 3041, subdivision (e)(1)(C) and 3141.7, subdivision (b) subject of the following conditions:

1. The car top railing may be inset only to the extent necessary to clear obstructions when the conveyance is located at the top landing to perform work on the machine and/or governor.
2. Serviceable equipment shall be positioned so that mechanics, inspectors, and others working on the car top can remain positioned on the car top within the confines of the railings and do not have to climb on or over railings to perform adjustment, maintenance, minor repairs, inspections, or similar tasks. Persons performing those tasks are not to stand on or climb over railing, and those persons shall not remove handrails unless the equipment has been secured from movement and approved personal fall protection is used.
3. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall, and shall be beveled from an intermediate or bottom rail to the outside of the car top.

4. The top surface of the beveled area shall be clearly marked. The markings shall consist of alternating 4-inch red and white diagonal stripes.

5. The Applicant shall provide a durable sign with lettering not less than ½-inch high on a contrasting background. The sign shall be located on the inset top railing; the sign shall be visible from the access side of the car top, and the sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING.
PERSONNEL ARE PROHIBITED FROM REMOVING HANDRAIL
UNLESS THE EQUIPMENT HAS BEEN SECURED FROM MOVEMENT AND APPROVED
PERSONAL FALL PROTECTION IS USED.

6. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).

7. A mechanical means (e.g., locking bar mechanism) that will secure the car to the guide rail to prevent unintended movement shall be provided and used during machine and/or governor car-top work. The mechanical means (e.g., locking bar mechanism) shall have a safety factor of not less than 3.5 for the total unbalanced load.

8. An electrical switch or a lockout/tagout procedure shall be provided that will remove power from the driving machine and brake when the mechanical means (e.g., locking bar mechanism) is engaged.

9. In order to inhibit employees from working outside the car top railing, sections shall not be hinged and they shall be installed by means that will inhibit (but not necessarily completely preclude) removal. The Applicant shall ensure that all persons performing work that requires removal of any part of the car top railing are provided with fall protection that is appropriate and suitable for the assigned work. That fall protection shall consist of a personal fall arrest system or fall restraint system that complies with section 1670.

10. The bevel utilized by the Applicant in accordance with the variance granted from ASME A17.1-2004, section 2.10.2.4 shall slope at not less than 75 degrees from the horizontal to serve as the toe board; however, that slope may be reduced to a minimum of 40 degrees from the horizontal as may be required for sections where machine encroachment occurs.

11. If the Applicant directs or allows its employees to perform tasks on the car top, the Applicant shall develop, implement, and document a safety training program that shall provide training to Applicant employees. Components of the training shall include, but not necessarily be limited to, the following: car blocking procedures; how examination, inspection, adjustment, repair, removal and replacement of elevator components are to be performed safely, consistent with the requirements of the variance conditions; applicable provisions of the law and other sources of safety practices regarding the operation of the elevator. A copy of the training program shall be located in the control room of each elevator that is the subject of this variance, and a copy of the training program shall be attached to a copy of this variance that shall be retained in any building where an elevator subject to this variance is located. The Applicant shall not allow Certified Qualified Conveyance Company (CQCC) or other contractor personnel to work on the top of any elevator subject to this variance unless the Applicant first ascertains from the CQCC or other contractor that the personnel in question have received training equivalent to, or more extensive than, the training components referred to in this condition.

12. Any CQCC performing inspections, maintenance, servicing, or testing of the elevators shall be

provided a copy of this variance decision.

13. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
14. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
15. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Mitsubishi Elevators (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-495	BH Luxury Residences, LLC	9849 N. Santa Monica Blvd. Beverly Hills, CA	4

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Matt Jaskiewicz, with MITSUBISHI ELECTRIC US, INC., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each section A table specified Applicant intends to utilize Mitsubishi elevators at the location and in the number stated in the table in Item A1. The installation contracts for these elevators were signed on or after May 1, 2008, thus making the elevators subject to the Group IV Elevator Safety Orders.
2. The Board takes official notice and incorporates herein, Subsections D.3 through D.5 of the February 20, 2014, Decision of the Board in Permanent Variance File No. 13-V-270.
3. As reflected in the record of this matter, including Cal/OSHA evaluation as PD-3, and testimony at hearing, it is the professionally informed opinion of Cal/OSHA, that grant of requested variance, subject to conditions and limitations in substantial conforming with those set out per below Decision and Order, will provide Occupational Safety and Health equivalent or superior to that provided by the safety order requirements from which variance is sought.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicant's proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A.1 table shall have permanent variances from sections 3041, subdivision (e)(1)(C) and 3141.7, subdivision (b) subject of the following conditions:

1. The car top railing may be inset only to the extent necessary to clear obstructions when the conveyance is located at the top landing to perform work on the machine and/or governor.
2. Serviceable equipment shall be positioned so that mechanics, inspectors, and others working on the car top can remain positioned on the car top within the confines of the railings and do not have to climb on or over railings to perform adjustment, maintenance, minor repairs, inspections, or similar tasks. Persons performing those tasks are not to stand on or climb over railing, and those persons shall not remove handrails unless the equipment has been secured from movement and approved personal fall protection is used.
3. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall, and shall be beveled from an intermediate or bottom rail to the outside

of the car top.

4. The top surface of the beveled area shall be clearly marked. The markings shall consist of alternating 4-inch red and white diagonal stripes.

5. The Applicant shall provide a durable sign with lettering not less than ½-inch high on a contrasting background. The sign shall be located on the inset top railing; the sign shall be visible from the access side of the car top, and the sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING.
PERSONNEL ARE PROHIBITED FROM REMOVING HANDRAIL
UNLESS THE EQUIPMENT HAS BEEN SECURED FROM MOVEMENT AND APPROVED
PERSONAL FALL PROTECTION IS USED.

6. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).

7. A mechanical means (e.g., locking bar mechanism) that will secure the car to the guide rail to prevent unintended movement shall be provided and used during machine and/or governor car-top work. The mechanical means (e.g., locking bar mechanism) shall have a safety factor of not less than 3.5 for the total unbalanced load.

8. An electrical switch or a lockout/tagout procedure shall be provided that will remove power from the driving machine and brake when the mechanical means (e.g., locking bar mechanism) is engaged.

9. In order to inhibit employees from working outside the car top railing, sections shall not be hinged and they shall be installed by means that will inhibit (but not necessarily completely preclude) removal. The Applicant shall ensure that all persons performing work that requires removal of any part of the car top railing are provided with fall protection that is appropriate and suitable for the assigned work. That fall protection shall consist of a personal fall arrest system or fall restraint system that complies with section 1670.

10. The bevel utilized by the Applicant in accordance with the variance granted from ASME A17.1-2004, section 2.10.2.4 shall slope at not less than 75 degrees from the horizontal to serve as the toe board; however, that slope may be reduced to a minimum of 40 degrees from the horizontal as may be required for sections where machine encroachment occurs.

11. If the Applicant directs or allows its employees to perform tasks on the car top, the Applicant shall develop, implement, and document a safety training program that shall provide training to Applicant employees. Components of the training shall include, but not necessarily be limited to, the following: car blocking procedures; how examination, inspection, adjustment, repair, removal and replacement of elevator components are to be performed safely, consistent with the requirements of the variance conditions; applicable provisions of the law and other sources of safety practices regarding the operation of the elevator. A copy of the training program shall be located in the control room of each elevator that is the subject of this variance, and a copy of the training program shall be attached to a copy of this variance that shall be retained in any building where an elevator subject to this variance is located. The Applicant shall not allow Certified Qualified Conveyance Company (CQCC) or other contractor personnel to work on the top of any elevator subject to this variance unless the Applicant first ascertains from the CQCC or other contractor that the personnel in question have received training equivalent to, or more extensive than, the training components referred to in this condition.

12. Any CQCC performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
13. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
14. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
15. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

KONE Monospace 500 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-496	The Board of Trustees of the Leland Stanford Junior University	1215 Welch Rd. Stanford, CA	2

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each respective Applicant intends to utilize the KONE, Inc. Monospace 500 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

   2.20.4 Minimum Number and Diameter of Suspension Ropes

   …The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.
5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 500 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

   2.18.5.1 Material and Factor of Safety.

   … [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5…
10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).

13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.

14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).

15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1-2004, section 2.20.3:

$$f = \frac{(S \times N)}{W}$$ *where:*

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

f = the factor of safety from Table 2.20.3

16. ASME A17.1-2010 sections 2.20.3 and 2.20.4 utilize the same formula, but provide for use of suspension ropes having a diameter smaller than 9.5 mm, under specified conditions, key among them being that use of ropes having a diameter of between 8 mm to 9.5 mm be engineered with a factor of safety of 12 or higher This is a higher minimum factor of safety than that proposed by Applicant but a minimum recommended by Cal/OSHA as a condition of variance necessary to the achieving of safety equivalence to 9.5 mm rope

17. Cal/OSHA is in accord with Applicant, in proposing as a condition of safety equivalence, that periodic physical examination of the wire ropes be performed to confirm the ropes continue to meet the criteria set out in the (Application attachment) *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators*. Adherence to this condition will provide an additional assurance of safety equivalence, regarding smaller minimum diameter suspension rope outer wire performance over the course of its service life.

18. Applicant requests a permanent variance from section 3041, subdivision (e)(1)(C), which states:

    (1) All buildings and structures constructed after the effective date of this order that are provided with one or more passenger elevators shall be provided with not less than one passenger elevator designed and designated to accommodate the loading and transport of an ambulance gurney or stretcher maximum size 22 ½ in. (572 mm) by 75 in. (1.90 m) in its horizontal position and arranged to serve all landings in conformance with the following:

    ...

    (C) The elevator car shall have a minimum inside car platform of 80 in. (2.03 m) wide by 51 in. (1.30 m) deep.

    The intent of this language is to ensure that there is enough space to accommodate the access and egress of a gurney and medical personnel inside of a medical service elevator.

    This standard is made applicable to Group IV by section 3141.7, subdivision (b), which reads, "Elevators utilized to provide medical emergency service shall comply with Group II, section 3041(e)."

19. Applicant proposes to comply with the requirements of the 2019 California Building Code, section 3002.4.1a in the design of its medical emergency service elevator. That section requires:

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    The purpose of this requirement is to ensure that an elevator designated for emergency medical service will accommodate a minimum of two emergency personnel with an ambulance gurney or stretcher.

20. Cal/OSHA, by way of written submission to the record (Exhibit PD3), and stated position at hearing, is of the well informed opinion that grant of permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment,

and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each Application being the subject of this proceeding, per above section A.1 table, is conditionally GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 500 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room/space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be

inspected by Cal/OSHA and a “Permit to Operate” issued before the elevator is placed in service.

12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. All medical emergency service elevator(s) shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC) section 3002.4.1a:

       The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevator(s) shall be identified in the building construction documents in accordance with the 2019 California Building Code, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
15. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

APPENDIX 1

File Number	Elev ID	Minimum Suspension Ropes Per Elevator	Maximum Suspended Weight Per Elevator	Maximum Speed	Rated Capacity
26-V-496	1	8	11706	350	3500
26-V-496	2	8	11706	350	3500

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

TK Elevator Evolution (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-497	GMMR Stone, LLC	375 W. El Pintado Rd. Danville, CA	2

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, John Dillabough, with Diamond Construction Inc., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Applicant proposes to utilize inset car top railings and guards in compliance with ASME 17.1-2013, section 2.14.1.7.1 and the Vivante Westside, LLC File No. 18-V-364 (Nov. 20, 2020) decision (Vivante). Applicant further claims that the request is consistent with the Vivante, the Mack Urban, LLC, Permanent Variance No. 15-V-349 (Nov. 17, 2016), and the Patton Equities, LLC Permanent Variance No. 20-V-128 (Nov. 12, 2020) decisions (Patton Equities).
2. Applicant proposes to utilize noncircular elastomeric-coated steel belts ("ECSBs") rather than steel ropes in a machine room-less ("MRL") elevator installation, with updated data plates, data tags, and wedge sockets designed for use with ECSBs, as well as the appropriate factor of safety criteria conforming to ASME 17.1-2013, with a continuous residual strength detection device ("RSDD") compliant with the San Francisco Public Works (Permanent Variance No. 21-V-061, et al.) decisions.
3. The installation shall utilize the TK Elevator Model 104DP001 RSDD, accepted by Cal/OSHA on May 4, 2021.
4. Applicant proposes to comply with ASME A17.1-2013 sections 2.26.9.3, "Protection Against Failures", rather than the requirements of 2.26.9.3 and 2.26.9.4 in the ASME 2004 code.
5. Applicant proposes to use TKE's control systems, using the TKE TAC32T Controller with SIL3 rated elements, to provide equivalent safety to ASME A17.1-2004, section 2.26.9.4 as a means to inhibit flow of Alternating Current to the Driving Motor in compliance with ASME A17.1-2013, section 2.26.9.6.
6. Applicant proposes to locate the Inspection Transfer Switch within the machinery/control room/space in the MRL installation, in compliance with ASME 17.1-2013, section 2.26.1.4.
7. Applicant proposes to locate the Seismic-Operation Reset Switch in the machinery/control room/space in the MRL installation.

D. Relevant Safety Orders

Variance Request No. 1 (ASME A17.1-2004, section 2.14.1.7.1)

2.14.1.7.1 A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

Variance Request No. 2A (ASME A17.1-2004, section 2.20.1)

2.20.1 Suspension Means

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused.

Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process or their equivalent.

Variance Request No. 2B (ASME A17.1-2004, section 2.20.2[.1])

2.20.2.1 On Crosshead Data Plate.

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(a) the number of ropes

(b) the diameter in millimeters (mm) or inches (in.)

(c) the manufacturer's rated breaking strength per rope in kilo Newton (kN) or pounds (lb)

Variance Request No. 2C (ASME A17.1-2004, section 2.20.2.2)

2.20.2.2 On Rope Data Tag.

A metal data tag shall be securely attached to one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[…]

(f) whether the ropes were nonpreformed or preformed

[…]

Variance Request No. 2D. (ASME A17.1-2004, section 2.20.3)

2.20.3 Factor of Safety

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{(S \times N)}{W}$$

where:

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Variance Request No. 2E (ASME A17.1-2004, section 2.20.4)

2.20.4 Minimum Number and Diameter of Suspension Ropes

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term" diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Variance Request No. 2F (ASME A17.1-2004, section 2.20.9[.1])

2.20.9 Suspension-Rope Fastening

2.20.9.1 Type of Rope Fastenings. The car and counterweight ends of suspension wire ropes, or the stationary hitch-ends where multiple roping is used, shall be fastened in such a manner that all portions of the rope, except the portion inside the rope sockets, shall be readily visible.

Fastening shall be

(a) by individual tapered rope sockets (see 2.20.9.4) or other types of rope fastenings that have undergone adequate tensile engineering tests, provided that

(1) such fastenings conform to 2.20.9.2 and 2.20.9.3;

(2) the rope socketing is such as to develop at least 80% of the ultimate breaking strength of the strongest rope to be used in such fastenings; or

(b) by individual wedge rope sockets (see 2.20.9.5); and

(c) U-bolt-type rope clamps or similar devices shall not be used for suspension rope fastenings.

Variance Request No. 3 (ASME A17.1-2004, section 2.26.9.4)

2.26.9.4 Redundant devices used to satisfy 2.26.9.3 in the determination of the occurrence of a single ground, or the failure of any single magnetically operated switch, contactor or relay, or of any single solid state device, or any single device that limits the leveling or truck zone, or a software system failure, shall be checked prior to each start of the elevator from a landing, when on automatic operation. When a single ground or failure, as specified in 2.26.9.3, occurs, the car shall not be permitted to restart. Implementation of redundancy by a software system is permitted, provided that the removal of power from the driving-machine motor and brake shall not be solely dependent on software-controlled means.

Variance Request No. 4 (ASME A17.1-2004, section 2.26.9.6.1)

2.26.9.6.1 Two separate means shall be provided to independently inhibit the flow of alternating-current through the solid state devices that connect the direct-current power source to the alternating-current driving motor. At least one of the means shall be an electromechanical relay.

Variance Request No. 5 (ASME A17.1-2004, section 2.26.1.4.4(a))

2.26.1.4.4 Machine Room Inspection Operation

(a) When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be located in the machine room.

Variance Request No. 6 (ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b))

8.4.10.1.1 Earthquake Equipment (See Also Fig. 8.4.10.1.1)

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room [see 8.4.10.1.3(i)]

E. Decision and Order

Applicant is hereby conditionally GRANTED Permanent Variance as specified below, and to the limited extent, as of the date the Board adopts this Proposed Decision, with respect to the section A specified number of TKE EVO 200 elevator(s), at the specified location, each shall conditionally hold permanent variance from the following subparts of ASME A17.1-2004, currently incorporated by reference into section 3141 of the Elevator Safety Orders:

- Car-Top Railing: 2.14.1.7.1 (Limited to the extent necessary to permit the use of an inset car-top railing)
- Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, and 2.20.9.1

(Limited to the extent necessary to permit the use of the elastomeric-coated steel belts in lieu of circular steel suspension ropes)

- Inspection transfer switch: 2.26.1.4.4(a) (Limited to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room)
- Software Reliant Means to Remove Power: 2.26.9.4 (Limited to the extent necessary to permit the exclusive use of SIL-rated software systems as a means to remove power from the driving machine motor and brake)
- SIL-Rated Circuitry to Inhibit Current Flow: 2.26.9.6.1 (Limited to the extent necessary to permit the use of SIL-rated circuitry in place of an electromechanical relay to inhibit current flow to the drive motor)
- Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Limited to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room)

Inset Car Top Railing (Variance Request No. 1):

1.0 Any and all inset car top railings shall comply with the following:

1.1 Serviceable equipment shall be positioned so that mechanics and inspectors do not have to stand on or climb over the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit trained elevator mechanics or elevator service personnel to stand or climb over the car top railing.

1.2 The distance that the railing can be inset shall be limited to not more than six inches (6”).

1.3 All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds two inches (2”), shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.

1.4 The top surface of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4” diagonal red and white stripes.

1.5 The Applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING

1.6 The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).

Suspension Means (Variance Request No. 2):

2.0 The elevator suspension system shall comply with the following:

2.1 The elastomeric coated steel belts (ECSBs) and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:

2.20.4.3 – Minimum Number of Suspension Members

2.20.3 – Factor of Safety

2.20.9 – Suspension Member Fastening

2.2 Additionally, ECSBs shall meet or exceed all requirements of ASME A17.6-2010, Standard for Elevator Suspension, Compensation, and Governor Systems, Part 3 Noncircular Elastomeric Coated Steel Suspension Members for Elevators.

2.3 The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the ECSBs and fastenings and related monitoring and detection systems and criteria for ECSB replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

2.4 ECSB mandatory replacement criteria shall include:

2.4.1. Any exposed wire, strand or cord;

2.4.2. Any wire, strand or cord breaks through the elastomeric coating;

2.4.3. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric coated steel suspension member;

2.4.4. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends.

2.5 Traction drive sheaves must have a minimum diameter of 112 mm. The maximum speed of ECSBs running on 112 mm drive sheaves shall be no greater than 6.1 m/s.

2.6 If any one (1) ECSB needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: If a new suspension member is damaged during installation, and prior to any contemporaneously installed ECSB having been placed into service, it is permissible to replace the individual damaged suspension member. ECSBs that have been installed on another installation shall not be re used.

2.7 A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.

2.8 A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).

2.9 An elevator controller integrated bend cycle monitoring system shall monitor actual ECSB bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that

the ECSB makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single ECSB member drops below (60%) sixty percent of full rated strength. The monitoring means shall prevent the car from restarting. Notwithstanding any less frequent periodic testing requirement per Addendum 2 (Cal/OSHA Circular Letter), the bend cycle monitoring system shall be tested semiannually in accordance with the procedures required per above Conditions 2.3 and 2.4.

2.10 The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.

2.11 A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.

2.12 Comprehensive visual inspections of the entire length of each and all installed suspension members, in conformity with above Conditions 2.3 and 2.4 specified criteria, shall be conducted and documented every six (6) months by a CCCM.

2.13 The Applicant shall be subject to the requirements per hereto attached, and inhere incorporated, Addendum 1, “Suspension Means Replacement Reporting Condition.”

2.14 Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2, and 8.6.1.4, respectively.

2.15 The subject elevators(s) shall be equipped with a TK Elevator Model 104DP001 Residual Strength Detection Device accepted by Cal/OSHA on May 4, 2021 or Cal/OSHA accepted equivalent device.

Control and Operating Circuits
Combined Software Redundant Devices with Software Removal of Power from Driving Motor and Brake (Variance Request No. 3)
Removal of Power from Driving Motor Without Electro-mechanical Switches (Variance Request No. 4)

3.0 The SIL rated circuitry used to provide device/circuit redundancy and to inhibit electrical current flow in accordance with ASME A17.1-2004, sections 2.26.9.4 and 2.26.9.6.1 shall comply with the following:

3.1 The SIL rated systems and related circuits shall consist of:

3.1.1. ELGO LIMAX33 RED, (aka LIMAX3R-03-050-0500-CNXTG-RJU), Safe Magnetic Absolute Shaft Information System, labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/A 163), followed by the applicable revision number (as in 968/A 163.07/19).

3.1.2 Printed circuit board assembly SSOA (6300 AHE001), labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/FSP 1347), followed by the applicable revision number (as in 968/FSP 1347.00/16).

3.1.3 Two circuit board components (Serializer S3I and S3O), each labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization and the SIL certification number (968/A 162), followed by the applicable revision number (as in 968/A 162.04/18)

3.2 The software system and related circuits shall be certified for compliance with the applicable requirements of ASME A17.1-2013, section 2.26.4.3.2.

3.3 The access door or cover of the enclosures containing the SIL rated components shall be clearly labeled or tagged on their exterior with the statement:

Assembly contains SIL rated devices.
Refer to maintenance Control Program and wiring diagrams
prior to performing work.

3.4 Unique maintenance procedures or methods required for the inspection, testing, or replacement of the SIL rated circuits shall be developed and a copy maintained in the elevator machine/control room/space. The procedures or methods shall include clear color photographs of each SIL rated component, with notations identifying parts and locations.

3.5 Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.

3.6 A successful test of the SIL rated circuits shall be conducted initially and not less than annually in accordance with the testing procedure. The test shall demonstrate that SIL rated devices, safety functions, and related circuits operate as intended.

3.7 Any alterations to the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the alteration of SIL rated devices, the alterations shall be made in conformance with ASME A17.1-2013, section 8.7.1.9.

3.8 Any replacement of the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the replacement of SIL rated devices, the replacement shall be made in conformance with ASME A17.1-2013, section 8.6.3.14.

3.9 Any repairs to the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the repair of SIL rated devices, the repairs shall be made in conformance with ASME A17.1-2013, section 8.6.2.6.

3.10 Any space containing SIL rated circuits shall be maintained within the temperature and humidity range specified by TKE. The temperature and humidity range shall be posted on each enclosure containing SIL rated software or circuits.

3.11 Field software changes to the SIL rated system are not permitted. Any changes to the SIL rated system’s circuitry will require recertification and all necessary updates to the documentation and diagrams required by Conditions 3.4 and 3.5 above.

Inspection Transfer Switch and Seismic Reset Switch (Variance Request Nos. 5 and 6):

4.0 Inspection Transfer switch and Seismic Reset switch placement and enclosure shall comply with the following:

4.1 If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4, does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

4.2 If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

5.0 The elevator shall be serviced, maintained, adjusted, tested, and inspected only by CCCM having been trained, and competent, to perform those tasks on the TKE EVO 200 elevator system in accordance with written procedures and criteria, including as required per above Conditions 2.3, and 2.4.

6.0 Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in full service prior to the Permit to Operate being issued by Cal/OSHA.

7.0 The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2, and 411.3.

8.0 This Decision and Order shall remain in effect unless duly modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed by the Board's regulations.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 22, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

SUSPENSION MEANS REPLACEMENT REPORTING REQUIREMENTS

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, Attn: Engineering section, 2 MacArthur Place Suite 700, Santa Ana, CA 92707.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The Stateissued conveyance number, complete address, and Permanent Variance file number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, and certification expiration date of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which

case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2(a) above.

ADDENDUM 2

CIRCULAR LETTER E-10-04, October 6, 2010

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a nonfunctional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be nonfunctional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA Elevator Unit HQ

ADDENDUM 3

A. A Residual Strength Detection Device (RSDD) shall continuously monitor all Elastomeric Coated Steel Belt suspension members (ECSB), automatically stopping the car if the residual strength of any belt drops below 60%. The RSDD shall prevent the elevator from restarting after a normal stop at a landing. The RSDD shall device shall apply a form of electrical current and/or signal through the entire length of the steel tension elements of the ECSB and measure the current and/or signal on its return. The values measured shall be continuously compared to values that have been correlated to the remaining residual strength of the ECSB through testing. The required RSDD shall not rely upon giant magnetoresistance technology, or other magnetic measurement means, for residual strength detection or monitoring.

   The RSDD must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room or controller location. The removed RSDD must be replaced or returned to proper service within 30 days. If upon routine inspection, the RSDD device is found to be in a nonfunctional state, the date and findings are to be conspicuously documented in the elevator machine room or controller location.

   If upon inspection by Cal/OSHA, the RSDD is found to be nonfunctional or removed, and the required documentation is not in place, the elevator will be removed from service. If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

B. On or before November 21 2021, and thereafter, the above specified and documented RSDD shall be installed and operational on the subject elevator.

C. A successful functionality test of each RSDD shall be conducted once a year, and a copy of completed testing documentation conspicuously located in the machine room or within proximity of the controller.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-498	City of Ontario	Flight Tower Restaurant 3076 S. Champions Ave. Ontario, CA	2

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the

following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once

a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

   a. The width and thickness in millimeters or inches;

   b. The manufacturer's rated breaking strength in (kN) or (lbf);

   c. The name of the person or organization that installed the flat coated steel belts;

   d. The month and year the flat coated steel belts were installed;

   e. The month and year the flat coated steel belts were first shortened;

   f. The name or trademark of the manufacturer of the flat coated steel belts; and

   g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

   a. The number of belts;

   b. The belt width and thickness in millimeters or inches; and

   c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

   b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

   c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

e. The applicant shall provide durable signs with lettering not less than ½ inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon request.

12. The speed governor rope and sheaves shall comply with the following:

    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.

    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.

15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.

16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.

17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.

18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives

are to be notified of docketed permanent variance applications.

19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Schindler Model 5500 Elevator with SIL-Rated Drive to De-energize Drive Motor (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-499	Wilton Rancheria Gaming Authority	1 Sky River Parkway Elk Grove, CA	5

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Pete Cuellar, with SCHINDLER ELEVATOR CORPORATION, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

Requested Suspension Means Related Variance:

1. As each pertains to the non-circular elastomeric coated suspension members characteristic of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following Elevator Safety Order incorporated ASME Safety Code for Elevators and Escalators (ASME Code) A17.1-2004 sections and subsections:
    - Section 2.20.1 - Wire rope suspension means;
    - Section 2.20.2.1 - Crosshead data plate;
    - Subsection 2.20.2.2(a) - Wire rope data tag;
    - Subsection 2.20.2.2(f) - ID of steel wire rope as preformed or nonpreformed;
    - Section 2.20.3 - Wire rope safety factor;
    - Section 2.20.4 - Number and diameter of wire ropes;
    - Section 2.20.9.3.4 - Wire rope end connections;
    - Section 2.20.9.5 - Wire rope sockets;

Requested Car Top Railing Inset Variance:

2. As it pertains to top of car railing placement requiring space occupied by upper hoistway mounted elevator machinery characteristic of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following title 8, Elevator Safety Order incorporated ASME Code A17.1-2004 section:

    Section 2.14.1.7.1 - Top of Car Perimeter Railing Placement

Requested Seismic Reset Switch Placement Variance:

3. As it pertains to installation of the requisite seismic reset switch within a "machine room" location incompatible with machine-room-less design of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following title 8, Elevator Safety Order incorporated ASME Code subsection:

    Subsection 8.4.10.1.1(a)(2)(b)--Seismic Reset Switch Placement in Machine Room

Requested Transfer Switch Placement Variance:

4. As it pertains to installation of the requisite transfer switch within a "machine room" location incompatible with machine-room-less design of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following title 8, Elevator Safety Order incorporated ASME Code A17.1-2004 subsection:

   Subsection 2.26.1.4.4(a)--Transfer Switch Placement in Machine Room

Requested SIL Rated Motor Control:

5. As it pertains to the installation of SIL rated solid state controls to inhibit power to the elevator driving motor in lieu of electromechanical relay means, Applicant presently seeks permanent variance from the following Title 8 Elevator Safety Order incorporated ASME Code Section:

   Subsection 2.26.9.6.1 – Means to inhibit power to the elevator driving motor.

Official Notice and Incorporation by Reference - Permanent Variance No. 15-V-349:

6. Per hereby entered stipulation offered at hearing by Applicant, and Cal/OSHA, concerning preexisting Board records, including decisions in matters of permanent variance from Elevator Safety Order requirements, the Board takes Official Notice and expressly incorporates herein by reference, Permanent Variance No. 15-V-349, Decision and Order adopted November 17, 2016, section D.1 - D.75 findings, and therein entered record upon which it was based.

Positions of Cal/OSHA:

7. Having fully reviewed Applicant's request for variance from the above identified Elevator Safety Order requirements, it is the opinion of Cal/OSHA, that conditionally limited grant to Applicant of permanent variance as specified per the below Decision and Order, will provide for elevator safety, and occupational safety and health, equivalent or superior to that of the Elevator Safety Order requirements from which variance is being sought. The present opinion of Cal/OSHA, to any extent it may vary from those previously held with respect to the previously heard matter in Permanent Variance No. 15-V-349, and 26-V-348 regarding SIL control, reflects further scrutiny of the subject matter, consultation between Cal/OSHA, Applicant representatives, and refinement of recommended conditions and limitations.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Applicant is hereby conditionally GRANTED Permanent Variance as stated below, to the limited extent that each enumerated conveyance at the given location shall be subject to conditionally limited permanent variance from the below specified ASME A17.1-2004, requirements incorporated by reference into section 3141.

Suspension Members: Applicant shall conditionally hold permanent variance from the following section 3141 incorporated sections and subsections of ASME A17.1-2004, to the limited extent variance is necessary to provide for use of noncircular elastomeric- coated steel suspension members and concomitant components, and configurations - section 2.20.1; section 2.20.2.1; subsection 2.20.2.2(a); subsection 2.20.2.2(f); section 2.20.3; section 2.20.4: section 2.20.9.3.4; and section 2.20.9.5.4.

Inspection Transfer Switch: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section of ASME A17.1-2004, to the extent variance is necessary to having the requisite inspection transfer switch located elsewhere than a machine room, within a Security Group I enclosure built into an upper floor landing door jam, or within other readily accessible and secure space shared with the motion controller outside the hoistway: section 2.26.1.4.4(a).

Seismic Safety Switch Placement: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section of ASME A17.1-2004, to the limited extent variance is necessary to having the requisite seismic reset switch located elsewhere than a machine room, within a Security Group I enclosure built into an upper floor landing door jam, or within other readily accessible and secure space shared with the motion controller outside the hoistway: section 8.4.10.1.1(a)(2)(b).

Car Top Railing: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section of ASME A17.1-2004, to the limited extent variance is necessary to provide for the below specified insetting of the subject elevator's top of car railing: section 2.14.1.7.1.

Means of Removing Power: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section ASME A17.1-2004, to the extent necessary to permit the use of SIL rated devices and circuits as a means to remove power from the AC driving motor: section 2.26.9.6.1.

Further Conditions and Limitations:

1. The elevator suspension system shall comply with the following:

    1.1. The suspension traction media (STM) members and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:

    - Section 2.20.4.3 - Minimum Number of Suspension Members
    - Section 2.20.3 - Factor of Safety
    - Section 2.20.9 - Suspension Member Fastening

    1.2. Additionally, STMs shall meet or exceed all requirements of ASME A17.6-2010 Standard for Elevator Suspension, Compensation, and Governor Systems, Part 3, Noncircular Elastomeric Coated Steel Suspension Members for Elevators.

    1.3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the STM members and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

1.4. STM member mandatory replacement criteria shall include:

1.4.1 Any exposed wire, strand or cord;

1.4.2 Any wire, strand or cord breaks through the elastomeric coating;

1.4.3 Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric coated steel suspension member;

1.4.4 Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends.

1.5. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.

1.6. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: If a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.

1.7. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1.The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.

1.8. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).

1.9. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. Notwithstanding any less frequent periodic testing requirement per Addendum 1 (Cal/OSHA Circular Letter), the bend cycle monitoring system shall be tested semi-annually in accordance with the procedures required per above Conditions 1.2, and 1.3.

1.10. Each elevator shall be provided with a device that electronically detects a reduction in residual strength of each STM member. The device shall be in compliance with Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Addendum 1, and incorporated herein by reference.

1.11. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.

1.12. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.

1.13. Comprehensive visual inspections of the entire length of each and all installed suspension members, in conformity with above Conditions 1.2 and 1.3 specified criteria, shall be conducted and documented every six months by a CCCM.

1.14. The Applicant shall be subject to the requirements per hereto attached, and inhere incorporated, Addendum 2, "Suspension Means Replacement Reporting Condition."

1.15. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.

2. Inspection Transfer switch and Seismic Reset switch placement and enclosure shall comply with the following:

2.1. If the inspection transfer switch required by ASME A17.1-2004, Rule 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

2.2. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

3. Any and all inset car top railing shall comply with the following:

3.1. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to stand on or climb over the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car top railing.

3.2. The distance that the railing can be inset shall be limited to not more than 12 inches.

3.3. All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.

3.4. The top surface of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

3.5. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING

3.6. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required

bevel).

4. The SIL rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:

   a. The SIL-rated devices and circuits shall consist of a Variodyn SIL3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013, VAF023, or VAF043 labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/FSP 1556.00), and followed by the applicable revision number (as in 968/FSP 1556.00/19).
   b. The devices and circuits shall be certified for compliance with the applicable requirements of ASME A17.1-2013, section 2.26.4.3.2.
   c. The access door or cover of the enclosures containing the SIL rated components shall be clearly labeled or tagged on their exterior with the statement:

Assembly contains SIL rated devices.
Refer to Maintenance Control Program and
Wiring diagrams prior to performing work.

   d. Unique maintenance procedures or methods required for the inspection, testing, or replacement of the SIL rated circuits shall be developed and a copy maintained in the elevator machine/control room/space. The procedures or methods shall include clear color photographs of each SIL rated component, with notations identifying parts and locations.
   e. Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.
   f. Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.
   g. Any alterations to the SIL rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the alteration of SIL rated devices, the alterations shall be made in conformance with ASME A17.1-2013, section 8.7.1.9.
   h. Any replacement of the SIL rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the replacement of SIL rated devices, the replacement shall be made in conformance with ASME A17.1-2013, section 8.6.3.14.
   i. Any repairs to the SIL rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the repair of SIL rated devices, the repairs shall be made in conformance with ASME A17.1-2013, section 8.6.2.6.
   j. Any space containing SIL rated devices and circuits shall be maintained within the temperature and humidity range specified by Schindler Elevator Corporation. The temperature and humidity range shall be posted on each enclosure containing SIL rated devices and circuits.
   k. Field changes to the SIL rated system are not permitted. Any changes to the SIL rated system's devices and circuitry will require recertification and all necessary updates to the documentation and diagrams required by conditions d. and e. above.

5. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by CCCM

having been trained, and competent, to perform those tasks on the Schindler Model 5500 elevator system in accordance with written procedures and criteria, including as required per above Conditions 1.2, and 1.3.

6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
8. This Decision and Order shall remain in effect unless modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

8.1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.

8.2. Each such report shall contain, but not necessarily be limited to, the following information:

a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.

b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).

c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.

d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.

e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.

f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.

g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.

h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

8.3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-500	Red Tail Multifamily Land Development LLC	2977 Seaborg Ave. Ventura, CA	2

2. The safety order requirements are set out within section 3143 incorporated ASME A17.1-2004, sections 2.18.5.1 and 2.20.4.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference, by the Occupational Safety and Health Standards Board ("Board"), with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.

2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each respective Applicant intends to utilize the KONE, Inc. Monospace 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

   2.20.4 Minimum Number and Diameter of Suspension Ropes

   …The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.
5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

   2.18.5.1 Material and Factor of Safety.

   … [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5…
10. The Board takes notice of section 3141.7, subpart (a)(10):

    A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).

13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.

14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).

15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

$$f = \frac{(S \times N)}{W}$$ *where:*

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

f = the factor of safety from Table 2.20.3

16. ASME A17.1-2010 sections 2.20.3 and 2.20.4 utilize the same formula, but provide for use of suspension ropes having a diameter smaller than 9.5 mm, under specified conditions, key

among them being that use of ropes having a diameter of between 8 mm to 9.5 mm be engineered with a factor of safety of 12 or higher This is a higher minimum factor of safety than that proposed by Applicant but a minimum recommended by Cal/OSHA as a condition of variance necessary to the achieving of safety equivalence to 9.5 mm rope

17. Cal/OSHA is in accord with Applicant, in proposing as a condition of safety equivalence, that periodic physical examination of the wire ropes be performed to confirm the ropes continue to meet the criteria set out in the (Application attachment) *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators*. Adherence to this condition will provide an additional assurance of safety equivalence, regarding smaller minimum diameter suspension rope outer wire performance over the course of its service life.

18. Applicant requests a permanent variance from section 3041, subdivision (e)(1)(C), which states:

    (1) All buildings and structures constructed after the effective date of this order that are provided with one or more passenger elevators shall be provided with not less than one passenger elevator designed and designated to accommodate the loading and transport of an ambulance gurney or stretcher maximum size 22 ½ in. (572 mm) by 75 in. (1.90 m) in its horizontal position and arranged to serve all landings in conformance with the following:

    ...

    (C) The elevator car shall have a minimum inside car platform of 80 in. (2.03 m) wide by 51 in. (1.30 m) deep.

    The intent of this language is to ensure that there is enough space to accommodate the access and egress of a gurney and medical personnel inside of a medical service elevator.

    This standard is made applicable to Group IV by section 3141.7, subdivision (b), which reads, "Elevators utilized to provide medical emergency service shall comply with Group II, section 3041(e)."

19. Applicant proposes to comply with the requirements of the 2019 California Building Code, section 3002.4.1a in the design of its medical emergency service elevator. That section requires:

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    The purpose of this requirement is to ensure that an elevator designated for emergency medical service will accommodate a minimum of two emergency personnel with an ambulance gurney or stretcher.

20. Cal/OSHA, by way of written submission to the record (Exhibit PD3), and stated position at hearing, is of the well informed opinion that grant of permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each Application being the subject of this proceeding, per above section A.1 table, is conditionally GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC) section 3002.4.1a:

       The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevator(s) shall be identified in the building construction documents in accordance with the 2019 California Building Code, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.

15. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

APPENDIX 1

File Number	Elev ID	Minimum Suspension Ropes Per Elevator	Maximum Suspended Weight Per Elevator	Maximum Speed	Rated Capacity
26-V-500	1	7	12247	150	3500
26-V-500	2	7	12247	150	3500

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

KONE Monospace 500 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-501	Chino Valley Unified School District	14255 Peyton Dr. Chino Hills, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each respective Applicant intends to utilize the KONE, Inc. Monospace 500 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

   2.20.4 Minimum Number and Diameter of Suspension Ropes

   …The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.
5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 500 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

   2.18.5.1 Material and Factor of Safety.

   … [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5…
10. The Board takes notice of section 3141.7, subpart (a)(10):

    A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to

activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).

13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.

14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).

15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1-2004, section 2.20.3:

$$f = \frac{(S \times N)}{W}$$ *where:*

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

f = the factor of safety from Table 2.20.3

16. ASME A17.1-2010 sections 2.20.3 and 2.20.4 utilize the same formula, but provide for use of suspension ropes having a diameter smaller than 9.5 mm, under specified conditions, key among them being that use of ropes having a diameter of between 8 mm to 9.5 mm be engineered with a factor of safety of 12 or higher This is a higher minimum factor of safety than that proposed by Applicant but a minimum recommended by Cal/OSHA as a condition of variance necessary to the achieving of safety equivalence to 9.5 mm rope

17. Cal/OSHA is in accord with Applicant, in proposing as a condition of safety equivalence, that periodic physical examination of the wire ropes be performed to confirm the ropes continue to meet the criteria set out in the (Application attachment) *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators*. Adherence to this condition will provide an additional assurance of safety equivalence, regarding smaller minimum diameter suspension rope outer wire performance over the course of its service life.

18. Applicant requests a permanent variance from section 3041, subdivision (e)(1)(C), which states:

    (1) All buildings and structures constructed after the effective date of this order that are provided with one or more passenger elevators shall be provided with not less than one passenger elevator designed and designated to accommodate the loading and transport of an ambulance gurney or stretcher maximum size 22 ½ in. (572 mm) by 75 in. (1.90 m) in its horizontal position and arranged to serve all landings in conformance with the following:

    ...

    (C) The elevator car shall have a minimum inside car platform of 80 in. (2.03 m) wide by 51 in. (1.30 m) deep.

    The intent of this language is to ensure that there is enough space to accommodate the access and egress of a gurney and medical personnel inside of a medical service elevator.

    This standard is made applicable to Group IV by section 3141.7, subdivision (b), which reads, "Elevators utilized to provide medical emergency service shall comply with Group II, section 3041(e)."

19. Applicant proposes to comply with the requirements of the 2019 California Building Code, section 3002.4.1a in the design of its medical emergency service elevator. That section requires:

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    The purpose of this requirement is to ensure that an elevator designated for emergency medical service will accommodate a minimum of two emergency personnel with an ambulance gurney or stretcher.

20. Cal/OSHA, by way of written submission to the record (Exhibit PD3), and stated position at hearing, is of the well informed opinion that grant of permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each Application being the subject of this proceeding, per above section A.1 table, is conditionally GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 500 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room/space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC) section 3002.4.1a:

       The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevator(s) shall be identified in the building construction documents in accordance with the 2019 California Building Code, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.

15. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

APPENDIX 1

File Number	Elev ID	Minimum Suspension Ropes Per Elevator	Maximum Suspended Weight Per Elevator	Maximum Speed	Rated Capacity
26-V-501	1	7	11556	200	3500

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-502	UCSF Health	Helen Diller Hospital 501 Parnassus Ave. San Francisco, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the

subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance

record subject to ASME A17.1-2004, section 8.6.1.4).

f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

   a. The width and thickness in millimeters or inches;

   b. The manufacturer's rated breaking strength in (kN) or (lbf);

   c. The name of the person or organization that installed the flat coated steel belts;

   d. The month and year the flat coated steel belts were installed;

   e. The month and year the flat coated steel belts were first shortened;

   f. The name or trademark of the manufacturer of the flat coated steel belts; and

   g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

   a. The number of belts;

   b. The belt width and thickness in millimeters or inches; and

   c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

   b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

   c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

e. The applicant shall provide durable signs with lettering not less than ½ inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon request.

12. The speed governor rope and sheaves shall comply with the following:

    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.

    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.

15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.

16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.

17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.

18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives

are to be notified of docketed permanent variance applications.

19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2O and/or Gen3 Peak with Variant Governor Rope and Sheaves & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-503	UCSF Health	Helen Diller Hospital 501 Parnassus Ave. San Francisco, CA	14

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Applicable Regulation

1. The Applicants request variance from some or all of the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

    a. Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4, and 2.20.9.5.4 (to permit the use of the Elastomeric Coated Steel Belts proposed by the Applicant in lieu of circular steel suspension ropes.);

    b. Cartop Railing: 2.14.1.7.1 (to permit the use of the car top railing system proposed by the Applicant, where the railing system is located inset from the elevator car top perimeter);

    c. Inspection transfer switch: 2.26.1.4.4(a) (to permit the inspection transfer switch to reside at a location other than the machine room);

    d. Seismic reset switch: 8.4.10.1.1(a)(2)(b) (to permit the seismic reset switch to reside at a location other than the machine room);

    e. Governor Rope Diameter: 2.18.5.1 (to permit the use of the governor rope proposed by the Applicant, where the rope has a diameter of 8 mm [0.315 in.]); Note: A variance from the section above is not required. However, the Board has included a variance from this code requirement in similar previous variances.

    f. Pitch Diameter: 2.18.7.4 (to permit the use of the speed governor system, proposed by the Applicant, where the rope sheave pitch diameter is less than what is required by the Elevator Safety Orders).

    g. Minimum Inside Car Platform Dimensions: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

D. Findings of Fact

1. The Board incorporates by reference the findings stated in:

    a. Items 3 through 5.c, 5.e, and 5.f of the "Findings of Fact" section of the Proposed Decision adopted by the Board on February 19, 2009, in Permanent Variance No. 08-V-247;

    b. Item D.3 of the Proposed Decision adopted by the Board on July 16, 2009, in Permanent Variance No. 09-V-042;

    c. Item D.4 of the Proposed Decision adopted by the Board on September 16, 2010, in Permanent Variance No. 10-V-029;

d. Items D.4, D.5, and D.7 of the Proposed Decision adopted by the Board on July 18, 2013, in Permanent Variance No. 12-V-146; and

e. Items D.4 and D.5 of the Proposed Decision adopted by the Board on September 25, 2014, in Permanent Variance No. 14-V-170.

f. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for OSHSB File No. 22-V-302 regarding medical emergency car dimensions.

2. Regarding requested variance in governor sheave diameter, and governor rope diameter, in variance from section 3141, incorporated ASME A17.1-2004, sections 2.18.7.4 and 2.18.5.1, respectively, the Board incorporates by reference the following previous findings of record: Items 8 through 12 of the Proposed Decision adopted by the Board on December 13, 2018, in Permanent Variance No. 18-V-425, and further substantiating bases per therein cited Permanent Variance Decisions of the Board.

3. The installation contracts for elevators, the subject of the permanent variance application, were signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders ("ESO").

4. Cal/OSHA safety engineers, by way of written submissions to the record (Exhibit PD-3), and positions stated at hearing, are of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

E. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

F. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, Applicant shall have permanent variances from section 3141 and from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4, and 2.20.9.5.4 (To permit the use of the Elastomeric Coated Steel Belts proposed by the Applicant in lieu of circular steel suspension ropes.);
- Cartop Railing: 2.14.1.7.1 (To permit the use of the car top railing system proposed by the Applicant, where the railing system is located inset from the elevator car top perimeter);
- Inspection transfer switch: 2.26.1.4.4(a) (To permit the inspection transfer switch to reside at a location other than the machine room);
- Seismic reset switch: 8.4.10.1.1(a)(2)(b) (To permit the seismic reset switch to reside at a

location other than the machine room);

- Governor Rope Diameter: 2.18.5.1 (To permit the use of the governor rope proposed by the Applicant, where the rope has a diameter of 8 mm [0.315 in.]); Note: A variance from the section above is not required. However, the Board has included a variance from this code requirement in similar previous variances.
- Pitch Diameter: 2.18.7.4 (To permit the use of the speed governor system, proposed by the Applicant, where the rope sheave pitch diameter is less than what is required by the Elevator Safety Orders).
- Minimum Inside Car Platform Dimensions: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

The variance shall be subject to, and limited by, the following additional conditions:

1. Each elevator subject to this variance shall comply with all applicable Group IV Elevator Safety Orders and with all ASME provisions made applicable by those Group IV Elevator Safety Orders, except those from which variances are granted, as set forth in the prefatory portion of this Decision and Order.
2. The suspension system shall comply with the following:
    a. The coated steel belt shall have a factor of safety at least equal to the factor of safety that ASME A17.1-2004, section 2.20.3, would require for wire ropes if the elevator were suspended by wire ropes rather than the coated steel belt.
    b. Steel-coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.
    g. The installation of belts and connections shall be in conformance with the manufacturer's specifications, which shall be provided to Cal/OSHA.
3. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Addendum 1 and incorporated herein by this reference.
4. The Applicant shall not utilize each elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device, and

criteria for belt replacement, and shall make those procedures and criteria available to Cal/OSHA upon request.

5. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
    a. The width and thickness in millimeters or inches;
    b. The manufacturer's rated breaking strength in (kN) or (lbf);
    c. The name of the person who, or organization that, installed the flat coated steel belts;
    d. The month and year the flat coated steel belts were installed;
    e. The month and year the flat coated steel belts were first shortened;
    f. The name or trademark of the manufacturer of the flat coated steel belts;
    g. Lubrication information.

6. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
    a. The number of belts,
    b. The belt width and thickness in millimeters or inches, and
    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

7. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
8. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a), does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. When the inspection and test control panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
10. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
11. If there is an inset car top railing:
    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs, or inspections. The Applicant shall not permit anyone to stand on or climb over the car top railing.
    b. The distance that the car top railing may be inset from the car top perimeter shall be limited to no more than 6 inches.

c. All exposed areas of the car top outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

d. The top of the beveled area and/or the car top outside the railing, shall be clearly marked. The markings shall consist of alternating four-inch diagonal red and white stripes.

e. The Applicant shall provide, on each inset railing, durable signs with lettering not less than ½ inch on a contrasting background. Each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top, and not from the required bevel).

12. The speed governor rope and sheaves shall comply with the following:

a. The governor shall be used in conjunction with a 8 mm (0.315 in.) diameter steel governor rope with 8-strand, regular lay construction.

b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

c. The governor sheaves shall have a pitch diameter of not less than 240 mm (9.45 in.).

13. Each elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen2(O) and/or Gen3 Peak elevator system the Applicant proposes to use, in accordance with the written procedures and criteria required by Condition No. 4 and the terms of this permanent variance.

14. All medical emergency service elevators shall comply with the following:

a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21- inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5 inch (127 mm) radius corners] in the horizontal, open position.

b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.

c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.

16. Cal/OSHA shall be notified when each elevator is ready for inspection. Each elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before each elevator is placed in service.
17. The Applicant shall be subject to the suspension means replacement reporting condition stated in Addendum 2; that condition is incorporated herein by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the application for permanent variance, per sections 411.2 and 411.3.
19. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-504	Sophia Foundation	Calvary Chapel Parking Structure 4271 Eucalyptus Ave. Chino, CA	2

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the

following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once

a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

   a. The width and thickness in millimeters or inches;

   b. The manufacturer's rated breaking strength in (kN) or (lbf);

   c. The name of the person or organization that installed the flat coated steel belts;

   d. The month and year the flat coated steel belts were installed;

   e. The month and year the flat coated steel belts were first shortened;

   f. The name or trademark of the manufacturer of the flat coated steel belts; and

   g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

   a. The number of belts;

   b. The belt width and thickness in millimeters or inches; and

   c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

   b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

   c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

e. The applicant shall provide durable signs with lettering not less than ½ inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon request.

12. The speed governor rope and sheaves shall comply with the following:

    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.

    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.

15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.

16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.

17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.

18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives

are to be notified of docketed permanent variance applications.

19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-506	Rainbow Investment Co.	8787 Center Drive La Mesa, CA	1

2. The safety order requirements are set out within section 3143 incorporated ASME A17.1-2004, sections 2.18.5.1 and 2.20.4.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference, by the Occupational Safety and Health Standards Board ("Board"), with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.

2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each respective Applicant intends to utilize the KONE, Inc. Monospace 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

   2.20.4 Minimum Number and Diameter of Suspension Ropes

   …The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.
5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

   2.18.5.1 Material and Factor of Safety.

   … [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5…
10. The Board takes notice of section 3141.7, subpart (a)(10):

    A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).

13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.

14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).

15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

$$f = \frac{(S \times N)}{W}$$ *where:*

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

f = the factor of safety from Table 2.20.3

16. ASME A17.1-2010 sections 2.20.3 and 2.20.4 utilize the same formula, but provide for use of suspension ropes having a diameter smaller than 9.5 mm, under specified conditions, key

among them being that use of ropes having a diameter of between 8 mm to 9.5 mm be engineered with a factor of safety of 12 or higher This is a higher minimum factor of safety than that proposed by Applicant but a minimum recommended by Cal/OSHA as a condition of variance necessary to the achieving of safety equivalence to 9.5 mm rope

17. Cal/OSHA is in accord with Applicant, in proposing as a condition of safety equivalence, that periodic physical examination of the wire ropes be performed to confirm the ropes continue to meet the criteria set out in the (Application attachment) *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators*. Adherence to this condition will provide an additional assurance of safety equivalence, regarding smaller minimum diameter suspension rope outer wire performance over the course of its service life.

18. Applicant requests a permanent variance from section 3041, subdivision (e)(1)(C), which states:

    (1) All buildings and structures constructed after the effective date of this order that are provided with one or more passenger elevators shall be provided with not less than one passenger elevator designed and designated to accommodate the loading and transport of an ambulance gurney or stretcher maximum size 22 ½ in. (572 mm) by 75 in. (1.90 m) in its horizontal position and arranged to serve all landings in conformance with the following:

    ...

    (C) The elevator car shall have a minimum inside car platform of 80 in. (2.03 m) wide by 51 in. (1.30 m) deep.

    The intent of this language is to ensure that there is enough space to accommodate the access and egress of a gurney and medical personnel inside of a medical service elevator.

    This standard is made applicable to Group IV by section 3141.7, subdivision (b), which reads, "Elevators utilized to provide medical emergency service shall comply with Group II, section 3041(e)."

19. Applicant proposes to comply with the requirements of the 2019 California Building Code, section 3002.4.1a in the design of its medical emergency service elevator. That section requires:

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    The purpose of this requirement is to ensure that an elevator designated for emergency medical service will accommodate a minimum of two emergency personnel with an ambulance gurney or stretcher.

20. Cal/OSHA, by way of written submission to the record (Exhibit PD3), and stated position at hearing, is of the well informed opinion that grant of permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each Application being the subject of this proceeding, per above section A.1 table, is conditionally GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC) section 3002.4.1a:

       The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevator(s) shall be identified in the building construction documents in accordance with the 2019 California Building Code, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.

15. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

APPENDIX 1

File Number	Elev ID	Minimum Suspension Ropes Per Elevator	Maximum Suspended Weight Per Elevator	Maximum Speed	Rated Capacity
26-V-506	1	7	12247	150	3500

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Medical Emergency Elevator Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-507	El Camino Hospital	2505 Hospital Dr. Mountain View, CA	

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact and Applicable Regulations

1. Applicant requests a permanent variance from section 3041, subdivision (e)(1)(C), which states:

> (1) All buildings and structures constructed after the effective date of this order that are provided with one or more passenger elevators shall be provided with not less than one passenger elevator designed and designated to accommodate the loading and transport of an ambulance gurney or stretcher maximum size 22 ½ in. (572 mm) by 75 in. (1.90 m) in its horizontal position and arranged to serve all landings in conformance with the following:
>
> ...
>
> (C) The elevator car shall have a minimum inside car platform of 80 in. (2.03 m) wide by 51 in. (1.30 m) deep.

The intent of this language is to ensure that there is enough space to accommodate the access and egress of a gurney and medical personnel inside of a medical service elevator.

This standard is made applicable to Group IV by section 3141.7, subdivision (b), which reads, "Elevators utilized to provide medical emergency service shall comply with Group II, section 3041(e)."

2. Applicant proposes to comply with the requirements of the 2019 California Building Code, section 3002.4.1a in the design of its medical emergency service elevator. That section requires:
The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

The purpose of this requirement is to ensure that an elevator designated for emergency medical service will accommodate a minimum of two emergency personnel with an ambulance gurney or stretcher.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A.1 table shall have permanent variances from sections 3041, subdivision (e)(1)(C) and 3141.7, subdivision (b) subject of the following conditions:

1. All medical emergency service elevator(s) shall comply with the requirements of the 2019 California Building Code section 3002.4.1a:

   > The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

2. All medical emergency service elevator(s) shall be identified in the building construction documents in accordance with the 2019 California Building Code, section 3002.4a.
3. Dimensional drawings and other information necessary to demonstrate compliance with the conditions of this permanent variance decision shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).
4. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing the elevators shall be provided a copy of this variance decision.
5. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
6. Applicant shall notify its employees and their authorized representative, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
7. This Decision and Order shall remain in effect unless duly modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with then in effect administrative procedures of the Board.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-508	Harmony at Cota Vera, LLC	1825 Savoria Parkway Chula Vista, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

    a. The width and thickness in millimeters or inches;

    b. The manufacturer's rated breaking strength in (kN) or (lbf);

    c. The name of the person or organization that installed the flat coated steel belts;

    d. The month and year the flat coated steel belts were installed;

    e. The month and year the flat coated steel belts were first shortened;

    f. The name or trademark of the manufacturer of the flat coated steel belts; and

    g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

    a. The number of belts;

    b. The belt width and thickness in millimeters or inches; and

    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

    b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

    c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

    d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

    e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:
    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-509	Harmony at Cota Vera, LLC	2030 Paseo Melodina Chula Vista, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

    a. The width and thickness in millimeters or inches;

    b. The manufacturer's rated breaking strength in (kN) or (lbf);

    c. The name of the person or organization that installed the flat coated steel belts;

    d. The month and year the flat coated steel belts were installed;

    e. The month and year the flat coated steel belts were first shortened;

    f. The name or trademark of the manufacturer of the flat coated steel belts; and

    g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

    a. The number of belts;

    b. The belt width and thickness in millimeters or inches; and

    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

    b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

    c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

    d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

    e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:
    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-510	Navajo Road Housing Associates, L.P.	7005 Navajo Rd. San Diego, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

    a. The width and thickness in millimeters or inches;

    b. The manufacturer's rated breaking strength in (kN) or (lbf);

    c. The name of the person or organization that installed the flat coated steel belts;

    d. The month and year the flat coated steel belts were installed;

    e. The month and year the flat coated steel belts were first shortened;

    f. The name or trademark of the manufacturer of the flat coated steel belts; and

    g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

    a. The number of belts;

    b. The belt width and thickness in millimeters or inches; and

    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

    b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

    c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

    d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

    e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:
    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-511	Harmony at Cota Vera, LLC	1810 Paseo Baladina Chula Vista, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

    a. The width and thickness in millimeters or inches;

    b. The manufacturer's rated breaking strength in (kN) or (lbf);

    c. The name of the person or organization that installed the flat coated steel belts;

    d. The month and year the flat coated steel belts were installed;

    e. The month and year the flat coated steel belts were first shortened;

    f. The name or trademark of the manufacturer of the flat coated steel belts; and

    g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

    a. The number of belts;

    b. The belt width and thickness in millimeters or inches; and

    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

    b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

    c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

    d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

    e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:
    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-512	Harmony at Cota Vera, LLC	2005 Avenida Vivara Chula Vista, CA	2

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

    a. The width and thickness in millimeters or inches;

    b. The manufacturer's rated breaking strength in (kN) or (lbf);

    c. The name of the person or organization that installed the flat coated steel belts;

    d. The month and year the flat coated steel belts were installed;

    e. The month and year the flat coated steel belts were first shortened;

    f. The name or trademark of the manufacturer of the flat coated steel belts; and

    g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

    a. The number of belts;

    b. The belt width and thickness in millimeters or inches; and

    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

    b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

    c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

    d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

    e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:
    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-513	LA Sanitation	Tilman Advanced Water Purification Facility 6100 Woodley Ave. Van Nuys, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the

following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once

a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

   a. The width and thickness in millimeters or inches;

   b. The manufacturer's rated breaking strength in (kN) or (lbf);

   c. The name of the person or organization that installed the flat coated steel belts;

   d. The month and year the flat coated steel belts were installed;

   e. The month and year the flat coated steel belts were first shortened;

   f. The name or trademark of the manufacturer of the flat coated steel belts; and

   g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

   a. The number of belts;

   b. The belt width and thickness in millimeters or inches; and

   c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

   b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

   c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

e. The applicant shall provide durable signs with lettering not less than ½ inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon request.

12. The speed governor rope and sheaves shall comply with the following:

    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.

    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.

15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.

16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.

17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.

18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives

are to be notified of docketed permanent variance applications.

19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

KONE Monospace 500 Elevators (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-517	SPI 80 Grand Broadway, LLC	80 Grand Ave. Oakland, CA	2

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each respective Applicant intends to utilize the KONE, Inc. Monospace 500 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

   2.20.4 Minimum Number and Diameter of Suspension Ropes

   …The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.
5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 500 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

   2.18.5.1 Material and Factor of Safety.

   … [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5…
10. The Board takes notice of section 3141.7, subpart (a)(10):

    A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to

activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).

13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.

14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).

15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

$$f = \frac{(S \times N)}{W}$$ *where:*

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

f = the factor of safety from Table 2.20.3

16. ASME A17.1-2010 sections 2.20.3 and 2.20.4 utilize the same formula, but provide for use of suspension ropes having a diameter smaller than 9.5 mm, under specified conditions, key among them being that use of ropes having a diameter of between 8 mm to 9.5 mm be engineered with a factor of safety of 12 or higher This is a higher minimum factor of safety than that proposed by Applicant but a minimum recommended by Cal/OSHA as a condition of variance necessary to the achieving of safety equivalence to 9.5 mm rope

17. Cal/OSHA is in accord with Applicant, in proposing as a condition of safety equivalence, that periodic physical examination of the wire ropes be performed to confirm the ropes continue to meet the criteria set out in the (Application attachment) *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators*. Adherence to this condition will provide an additional assurance of safety equivalence, regarding smaller minimum diameter suspension rope outer wire performance over the course of its service life.

18. Cal/OSHA, by way of written submission to the record (Exhibit PD3), and stated position at hearing, is of the well informed opinion that grant of permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each Application being the subject of this proceeding, per above section A.1 table, is conditionally GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 500 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).

2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.

3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.

4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).

5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.

6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a “Permit to Operate” issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
14. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

APPENDIX 1

File Number	Elev ID	Minimum Suspension Ropes Per Elevator	Maximum Suspended Weight Per Elevator	Maximum Speed	Rated Capacity
26-V-517	1	6	8780	350	2500
26-V-517	2	6	8780	350	2500

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-519	MDNI Group LLC	930 S. Mansfield Ave. Los Angeles, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

    a. The width and thickness in millimeters or inches;

    b. The manufacturer's rated breaking strength in (kN) or (lbf);

    c. The name of the person or organization that installed the flat coated steel belts;

    d. The month and year the flat coated steel belts were installed;

    e. The month and year the flat coated steel belts were first shortened;

    f. The name or trademark of the manufacturer of the flat coated steel belts; and

    g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

    a. The number of belts;

    b. The belt width and thickness in millimeters or inches; and

    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

    b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

    c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

    d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

    e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:
    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-520	525 Water Street LP	525 Water St. Santa Cruz, CA	2

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

    a. The width and thickness in millimeters or inches;

    b. The manufacturer's rated breaking strength in (kN) or (lbf);

    c. The name of the person or organization that installed the flat coated steel belts;

    d. The month and year the flat coated steel belts were installed;

    e. The month and year the flat coated steel belts were first shortened;

    f. The name or trademark of the manufacturer of the flat coated steel belts; and

    g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

    a. The number of belts;

    b. The belt width and thickness in millimeters or inches; and

    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

    b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

    c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

    d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

    e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:
    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-521	The Glen at Heather Farm Walnut Creek CCRC LLC	850 Seven Hills Ranch Rd. Walnut Creek, CA	8

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the

subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance

record subject to ASME A17.1-2004, section 8.6.1.4).

f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

   a. The width and thickness in millimeters or inches;

   b. The manufacturer's rated breaking strength in (kN) or (lbf);

   c. The name of the person or organization that installed the flat coated steel belts;

   d. The month and year the flat coated steel belts were installed;

   e. The month and year the flat coated steel belts were first shortened;

   f. The name or trademark of the manufacturer of the flat coated steel belts; and

   g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

   a. The number of belts;

   b. The belt width and thickness in millimeters or inches; and

   c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

   b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

   c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

e. The applicant shall provide durable signs with lettering not less than ½ inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon request.

12. The speed governor rope and sheaves shall comply with the following:

    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.

    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.

15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.

16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.

17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.

18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives

are to be notified of docketed permanent variance applications.

19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-522	SHAC 11 ECR Apartments LLC	11 El Camino Real San Carlos, CA	3

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

    a. The width and thickness in millimeters or inches;

    b. The manufacturer's rated breaking strength in (kN) or (lbf);

    c. The name of the person or organization that installed the flat coated steel belts;

    d. The month and year the flat coated steel belts were installed;

    e. The month and year the flat coated steel belts were first shortened;

    f. The name or trademark of the manufacturer of the flat coated steel belts; and

    g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

    a. The number of belts;

    b. The belt width and thickness in millimeters or inches; and

    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

    b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

    c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

    d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

    e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:
    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-523	San Mateo County Community College District	Wing A (1 Elevator) Wing B (1 Elevator) 1700 W. Hillside Blvd. San Mateo, CA	2

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the

following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once

a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

   a. The width and thickness in millimeters or inches;

   b. The manufacturer's rated breaking strength in (kN) or (lbf);

   c. The name of the person or organization that installed the flat coated steel belts;

   d. The month and year the flat coated steel belts were installed;

   e. The month and year the flat coated steel belts were first shortened;

   f. The name or trademark of the manufacturer of the flat coated steel belts; and

   g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

   a. The number of belts;

   b. The belt width and thickness in millimeters or inches; and

   c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

   b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

   c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

e. The applicant shall provide durable signs with lettering not less than ½ inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon request.

12. The speed governor rope and sheaves shall comply with the following:

    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.

    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.

15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.

16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.

17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.

18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives

are to be notified of docketed permanent variance applications.

19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-524	Balboa Park Properties, LLC	BLDG A 250 W. Stuart Ave. Redlands, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the

subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance

record subject to ASME A17.1-2004, section 8.6.1.4).

f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

   a. The width and thickness in millimeters or inches;

   b. The manufacturer's rated breaking strength in (kN) or (lbf);

   c. The name of the person or organization that installed the flat coated steel belts;

   d. The month and year the flat coated steel belts were installed;

   e. The month and year the flat coated steel belts were first shortened;

   f. The name or trademark of the manufacturer of the flat coated steel belts; and

   g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

   a. The number of belts;

   b. The belt width and thickness in millimeters or inches; and

   c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

   b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

   c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

e. The applicant shall provide durable signs with lettering not less than ½ inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon request.

12. The speed governor rope and sheaves shall comply with the following:

    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.

    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.

15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.

16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.

17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.

18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives

are to be notified of docketed permanent variance applications.

19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-525	Balboa Park Properties, LLC	BLDG F 250 W. Stuart Ave. Redlands, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the

subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance

record subject to ASME A17.1-2004, section 8.6.1.4).

f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

   a. The width and thickness in millimeters or inches;

   b. The manufacturer's rated breaking strength in (kN) or (lbf);

   c. The name of the person or organization that installed the flat coated steel belts;

   d. The month and year the flat coated steel belts were installed;

   e. The month and year the flat coated steel belts were first shortened;

   f. The name or trademark of the manufacturer of the flat coated steel belts; and

   g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

   a. The number of belts;

   b. The belt width and thickness in millimeters or inches; and

   c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

   b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

   c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

e. The applicant shall provide durable signs with lettering not less than ½ inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon request.

12. The speed governor rope and sheaves shall comply with the following:

    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.

    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.

15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.

16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.

17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.

18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives

are to be notified of docketed permanent variance applications.

19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-526	Balboa Park Properties, LLC	BLDG G 250 W. Stuart Ave. Redlands, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the

subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance

record subject to ASME A17.1-2004, section 8.6.1.4).

f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

   a. The width and thickness in millimeters or inches;

   b. The manufacturer's rated breaking strength in (kN) or (lbf);

   c. The name of the person or organization that installed the flat coated steel belts;

   d. The month and year the flat coated steel belts were installed;

   e. The month and year the flat coated steel belts were first shortened;

   f. The name or trademark of the manufacturer of the flat coated steel belts; and

   g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

   a. The number of belts;

   b. The belt width and thickness in millimeters or inches; and

   c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

   b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

   c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

e. The applicant shall provide durable signs with lettering not less than ½ inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon request.

12. The speed governor rope and sheaves shall comply with the following:

    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.

    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.

15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.

16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.

17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.

18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives

are to be notified of docketed permanent variance applications.

19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Medical Emergency Elevator Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-527	College of the Sequoias	UNIVERSITY CENTER 915 S. Mooney Blvd. Visalia, CA	

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact and Applicable Regulations

1. Applicant requests a permanent variance from section 3041, subdivision (e)(1)(C), which states:

   (1) All buildings and structures constructed after the effective date of this order that are provided with one or more passenger elevators shall be provided with not less than one passenger elevator designed and designated to accommodate the loading and transport of an ambulance gurney or stretcher maximum size 22 ½ in. (572 mm) by 75 in. (1.90 m) in its horizontal position and arranged to serve all landings in conformance with the following:

   ...

   (C) The elevator car shall have a minimum inside car platform of 80 in. (2.03 m) wide by 51 in. (1.30 m) deep.

   The intent of this language is to ensure that there is enough space to accommodate the access and egress of a gurney and medical personnel inside of a medical service elevator.

   This standard is made applicable to Group IV by section 3141.7, subdivision (b), which reads, "Elevators utilized to provide medical emergency service shall comply with Group II, section 3041(e)."

2. Applicant proposes to comply with the requirements of the 2019 California Building Code, section 3002.4.1a in the design of its medical emergency service elevator. That section requires:
   The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

   The purpose of this requirement is to ensure that an elevator designated for emergency medical service will accommodate a minimum of two emergency personnel with an ambulance gurney or stretcher.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A.1 table shall have permanent variances from sections 3041, subdivision (e)(1)(C) and 3141.7, subdivision (b) subject of the following conditions:

1. All medical emergency service elevator(s) shall comply with the requirements of the 2019 California Building Code section 3002.4.1a:

   > The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

2. All medical emergency service elevator(s) shall be identified in the building construction documents in accordance with the 2019 California Building Code, section 3002.4a.
3. Dimensional drawings and other information necessary to demonstrate compliance with the conditions of this permanent variance decision shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).
4. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing the elevators shall be provided a copy of this variance decision.
5. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
6. Applicant shall notify its employees and their authorized representative, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
7. This Decision and Order shall remain in effect unless duly modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with then in effect administrative procedures of the Board.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-528	Long Beach Community College District	Student Housing 5018 E. Lew Davis St. Long Beach, CA	2

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the

subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance

record subject to ASME A17.1-2004, section 8.6.1.4).

f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

   a. The width and thickness in millimeters or inches;

   b. The manufacturer's rated breaking strength in (kN) or (lbf);

   c. The name of the person or organization that installed the flat coated steel belts;

   d. The month and year the flat coated steel belts were installed;

   e. The month and year the flat coated steel belts were first shortened;

   f. The name or trademark of the manufacturer of the flat coated steel belts; and

   g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

   a. The number of belts;

   b. The belt width and thickness in millimeters or inches; and

   c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

   b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

   c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

e. The applicant shall provide durable signs with lettering not less than ½ inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon request.

12. The speed governor rope and sheaves shall comply with the following:

    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.

    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.

15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.

16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.

17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.

18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives

are to be notified of docketed permanent variance applications.

19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

TK Elevator EOX

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
25-V-529	Rise 30th St LP	3727 & 3729 30th St. San Diego, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, James Day, with TK Elevator Corporation, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board’s files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Applicant proposes to install a standard railing on the car top and believes equivalent or superior safety is achieved by complying with ASME A17.1-2019, 2.14.1.7.1. This standard allows the railing to be in-set in order to create a space around the top rail to provide greater clearances when the hand is placed on the rail. The EOX standard rail is-inset approximately 3.75 inches. TKE will bevel any area of exposed cartop outside the standard rail greater than 4". By meeting the requirements in ASME A17.1-2019 and any additional beveling is how the applicant believes equivalent or superior safety is achieved.
2. Applicant proposes to utilize an engineered belt-type suspension product (ECSB) that arranges steel tension members longitudinally in an elastomeric coating using specifically designed fastenings for attachment. The Applicant asserts that the proposed ECSB suspension complies with the more recent edition of ASME A17.1-2019, which contains specific requirements for this type of suspension means. The Applicant asserts that proposed suspension means provides equivalent safety through compliance with the provisions contained in ASME A17.1-2019, ASME A17.6-2017 and the following:
    A. Belt tension monitoring.
    B. Slack belt detection (Broken suspension)
    C. Slip detection (traction loss)
    D. Factor of safety in accordance with the code.
    E. Residual Strength Detection Device (RSDD) accepted by Cal/OSHA.
    F. Visual inspections of the suspension elements at 6 months, and annually thereafter.
    G. Maintain manufacturer's quality control in accordance with ASME A17.6-2017 section 3.6.
3. The Applicant proposes the use of SIL-rated software and circuits to direct the removal of power to the elevator's driving machine. The Applicant asserts that their SIL-rated software and circuits meet the requirements of ASME A17.1-2019, section 2.26.9, for the use of SIL-rated systems in this role, providing equivalent safety to the existing ESO.
4. The Applicant asserts that their proposed motor control system meets the requirements of ASME A17.1-2019, section 2.26.9 for the use of SIL-rated circuits in this role and provides equivalent safety to the existing ESO.
5. The applicant asserts that equivalent safety is attained by relocating the inspection transfer switch and the seismic reset switch to the "Control Room". Newer standards define spaces and

rooms beyond a machine room (Machine Space, Control Space, etc.). The applicant through TKE believes equivalent safety is achieved by complying with the requirements in ASME A17.1-2019, section 2.26.1.4. machine rooms control rooms and control spaces are secured by a Group 1 security key, which would limit access to elevator personnel only.

D. Relevant Safety Orders

Variance Request No. 1 (ASME A17.1-2004, section 2.14.1.7.1)

2.14.1.7.1 A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

Variance Request No. 2a (ASME A17.1-2004, section 2.20.1)

2.20.1 Suspension Means

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused.

Only iron (low carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open hearth or electric furnace process or their equivalent.

Variance Request No. 2b1 (ASME A17.1-2004, section 2.20.2[.1])

2.20.2.1 On Crosshead Data Plate.

The crosshead data plate required by 2.16.3 shall bear the following wire rope data:

(a) the number of ropes

(b) the diameter in millimeters (mm) or inches (in.)

(c) the manufacturer's rated breaking strength per rope in kilo Newton (kN) or pounds (lb)

Variance Request No. 2b2 (ASME A17.1-2004, section 2.20.2.2)

2.20.2.2 On Rope Data Tag.

A metal data tag shall be securely attached to one of the wire rope fastenings. This data tag shall bear the following wire rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[…]

(f) whether the ropes were nonpreformed or preformed

[…]

Variance Request No. 2c (ASME A17.1-2004, section 2.20.3)

2.20.3 Factor of Safety

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{(S \times N)}{W}$$

where

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Variance Request No. 2d (ASME A17.1-2004, section 2.20.4)

2.20.4 Minimum Number and Diameter of Suspension Ropes

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Variance Request No. 2e (ASME A17.1-2004, section 2.20.9[.1])

2.20.9 Suspension Rope Fastening

2.20.9.1 Type of Rope Fastenings. The car and counterweight ends of suspension wire ropes, or the stationary hitch ends where multiple roping is used, shall be fastened in such a manner that all portions of the rope, except the portion inside the rope sockets, shall be readily visible.

Fastening shall be

(a) by individual tapered rope sockets (see 2.20.9.4) or other types of rope fastenings that have undergone adequate tensile engineering tests, provided that

(1) such fastenings conform to 2.20.9.2 and 2.20.9.3;

(2) the rope socketing is such as to develop at least 80% of the ultimate breaking strength of the strongest rope to be used in such fastenings; or

(b) by individual wedge rope sockets (see 2.20.9.5); and

(c) Ubolt type rope clamps or similar devices shall not be used for suspension rope fastenings.

Variance Request No. 3 (ASME A17.1-2004, section 2.26.1.4[.4](a))

2.26.1.4.4 Machine Room Inspection Operation. When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be (a) location in the machine room.

Variance Request No. 4a (ASME A17.1-2004, section 2.26.9.4)

2.26.9.4 Redundant devices used to satisfy 2.26.9.3 in the determination of the occurrence of a single ground, or the failure of any single magnetically operated switch, contactor or relay, or of any single solid state device, or any single device that limits the leveling or truck zone, or a software system failure, shall be checked prior to each start of the elevator from a landing, when on automatic operation. When a single ground or failure, as specified in 2.26.9.3, occurs, the car shall not be permitted to restart. Implementation of redundancy by a software system is permitted, provided that the removal of power from the driving machine motor and brake shall not be solely dependent on software controlled means.

Variance Request No. 4b (ASME A17.1-2004, section 2.26.9.6.1)

2.26.9.6.1 Two separate means shall be provided to independently inhibit the flow of alternating current through the solid state devices that connect the direct current power source to the alternating current driving motor. At least one of the means shall be an electromechanical relay.

Variance Request No. 5 (ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b))

8.4.10.1.1 Earthquake Equipment (See Also Fig. 8.4.10.1.1)

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room [see 8.4.10.1.3(i)]

E. Decision and Order

Applicant is hereby conditionally GRANTED Permanent Variance as specified below, and to the limited extent, as of the date the Board adopts this Proposed Decision, with respect to the section A specified number of TKE EOX MRL elevator(s), at the specified location, each shall conditionally hold permanent variance from the following subparts of ASME A17.1-2004, currently incorporated by reference into section 3141 of the Elevator Safety Orders:

- CarTop Railing: 2.14.1.7.1 (Limited to the extent necessary to permit the use of an inset cartop railing)
- Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, and 2.20.9.1 (Limited to the extent necessary to permit the use of the elastomeric-coated steel belts in lieu of circular steel suspension ropes)
- Inspection transfer switch: 2.26.1.4.4(a) (Limited to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room)
- Software Reliant Means to Remove Power: 2.26.9.4 (Limited to the extent necessary to permit the exclusive use of SIL-rated software systems as a means to remove power from the driving machine motor and brake)
- SIL-Rated Circuitry to Inhibit Current Flow: 2.26.9.6.1 (Limited to the extent necessary to permit the use of SIL-rated circuitry in place of an electromechanical relay to inhibit current flow to the drive motor)
- Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Limited to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room)

Inset Car Top Railing (Variance Request No. 1):

1.0 Any and all inset car top railings shall comply with the following:

1.1 Serviceable equipment shall be positioned so that mechanics and inspectors do not have to stand on or climb over the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit trained elevator mechanics or elevator service personnel to stand or climb over the car top railing.

1.2 The distance that the railing can be inset shall be limited to not more than six inches (6”).

1.3 All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds two inches (2”), shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.

1.4 The top surface of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4” diagonal red and white stripes.

1.5 The Applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
STAY INSIDE RAILING

NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING

1.6 The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).

Suspension Means (Variance Request No. 2):

2.0 The elevator suspension system shall comply with the following:

2.1 The elastomeric coated steel belts (ECSBs) and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2019, sections:

2.20.4.3 – Minimum Number of Suspension Members

2.20.3 – Factor of Safety

2.20.9 – Suspension Member Fastening

2.2 Additionally, ECSBs shall meet or exceed all requirements of ASME A17.6-2017, Standard for Elevator Suspension, Compensation, and Governor Systems, Part 3 Noncircular Elastomeric Coated Steel Suspension Members for Elevators.

2.3 The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the ECSBs and fastenings and related monitoring and detection systems and criteria for ECSB replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

2.4 ECSB mandatory replacement criteria shall include:

2.4.1. Any exposed wire, strand or cord;

2.4.2. Any wire, strand or cord breaks through the elastomeric coating;

2.4.3. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric coated steel suspension member;

2.4.4. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends.

2.5 Traction drive sheaves shall have a minimum diameter of 100 mm and used in conjunction with Brugg Drahtseil AG belts, type 8000728993 or 125AL002. The maximum speed of ECSBs running on 100 mm drive sheaves shall be no greater than 6.1 m/s (1200 fpm).

2.6 If any one (1) ECSB needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: If a new suspension member is damaged during installation, and prior to any contemporaneously installed ECSB having been placed into service, it is permissible to replace the individual damaged suspension member. ECSBs that have been installed on another installation shall not be re used.

2.7 A traction loss detection means shall be provided that conforms to the requirements of ASME

A17.1-2019, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2019, section 8.6.4.19.12.

2.8 A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2019, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2019, section 8.6.4.19.13(a).

2.9 An elevator controller integrated bend cycle monitoring system shall monitor actual ECSB bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the ECSB makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single ECSB member drops below (60%) sixty percent of full rated strength. The monitoring means shall prevent the car from restarting. Notwithstanding any less frequent periodic testing requirement per Addendum 2 (Cal/OSHA Circular Letter), the bend cycle monitoring system shall be tested semiannually in accordance with the procedures required per above Conditions 2.3 and 2.4.

2.10 The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2019, section 2.20.2.1.

2.11 A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2019, section 2.20.2.2.

2.12 Comprehensive visual inspections of the entire length of each and all installed suspension members, in conformity with above Conditions 2.3 and 2.4 specified criteria, shall be conducted and documented every six (6) months of operation, and subsequent inspections annually by a CCCM.

2.13 The Applicant shall be subject to the requirements per hereto attached, and inhere incorporated, Addendum 1, “Suspension Means Replacement Reporting Condition.”

2.14 Records of all tests and inspections shall be maintenance records subject to ASME A17.12004, sections 8.6.1.2, and 8.6.1.4, respectively.

2.15 The subject elevators(s) shall be equipped with a TK Elevator Model 104DP001 Residual Strength Detection Device accepted by Cal/OSHA on May 4, 2021 or Cal/OSHA accepted equivalent device.

Control and Operating Circuits
Combined Software Redundant Devices with Software Removal of Power from Driving Motor and Brake (Variance Request No. 4a)
Removal of Power from Driving Motor Without Electromechanical Switches (Variance Request No. 4b)

3.0 The SIL rated circuitry used to provide device/circuit redundancy and to inhibit electrical current flow in accordance with ASME A17.12004, sections 2.26.9.4 and 2.26.9.6.1 shall comply with the following:

3.1 The SIL rated systems and related circuits shall consist of: the driving-machine motor control system shall consist of a TKE, model HVI-22 or HVI-44, High Voltage Inverter containing a Safe Torque Off printed circuit board assembly (STO). The STO shall be labeled or marked with a SIL rating (not less than SIL3), the name or mark of the certifying organization and

SIL certification number FS/71/220, followed by the applicable revision number (as in FS/71/220/23/1060).

3.2 The software system and related circuits shall be certified for compliance with the applicable requirements of ASME A17.1-2019 Section 2.26.9.3.2(b), 2.26.4.3.2, 2.26.9.6.1(b) and 2.26.9.4.

3.3 The access door or cover of the enclosures containing the SIL rated components shall be clearly labeled or tagged on their exterior with the statement:

Assembly contains SIL rated devices.
Refer to maintenance Control Program and wiring diagrams
prior to performing work.

3.4 Unique maintenance procedures or methods required for the inspection, testing, or replacement of the SIL rated circuits shall be developed and a copy maintained in the elevator machine/control room/space. The procedures or methods shall include clear color photographs of each SIL rated component, with notations identifying parts and locations.

3.5 Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.

3.6 A successful test of the SIL rated circuits shall be conducted initially and not less than annually in accordance with the testing procedure. The test shall demonstrate that SIL rated devices, safety functions, and related circuits operate as intended.

3.7 Any alterations to the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the alteration of SIL rated devices, the alterations shall be made in conformance with ASME A17.1-2019, section 8.7.1.9.

3.8 Any replacement of the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the replacement of SIL rated devices, the replacement shall be made in conformance with ASME A17.1-2019, section 8.6.3.14.

3.9 Any repairs to the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the repair of SIL rated devices, the repairs shall be made in conformance with ASME A17.1-2019, section 8.6.2.6.

3.10 Any space containing SIL rated circuits shall be maintained within the temperature and humidity range specified by TKE. The temperature and humidity range shall be posted on each enclosure containing SIL rated software or circuits.

3.11 Field software changes to the SIL rated system are not permitted. Any changes to the SIL rated system's circuitry will require recertification and all necessary updates to the documentation and diagrams required by Conditions 3.4 and 3.5 above.

Inspection Transfer Switch and Seismic Reset Switch (Variance Request Nos. 3 and 5):

4.0 Inspection Transfer switch and Seismic Reset switch placement and enclosure shall comply with the following:

4.1 If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4, does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

4.2 If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

5.0 The elevator shall be serviced, maintained, adjusted, tested, and inspected only by CCCM having been trained, and competent, to perform those tasks on the TKE EOX MRL elevator system in accordance with written procedures and criteria, including as required per above Conditions 2.3, and 2.4.

6.0 Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in full service prior to the Permit to Operate being issued by Cal/OSHA.

7.0 The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2, and 411.3.

8.0 This Decision and Order shall remain in effect unless duly modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

SUSPENSION MEANS REPLACEMENT REPORTING REQUIREMENTS

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, Attn: Engineering section, 2 MacArthur Place Suite 700, Santa Ana, CA 92707.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The Stateissued conveyance number, complete address, and Permanent Variance file number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, and certification expiration date of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which

case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2(a) above.

ADDENDUM 2

CIRCULAR LETTER E-10-04, October 6, 2010

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a nonfunctional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be nonfunctional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA Elevator Unit HQ

ADDENDUM 3

A. A Residual Strength Detection Device (RSDD) shall continuously monitor all Elastomeric Coated Steel Belt suspension members (ECSB), automatically stopping the car if the residual strength of any belt drops below 60%. The RSDD shall prevent the elevator from restarting after a normal stop at a landing. The RSDD shall device shall apply a form of electrical current and/or signal through the entire length of the steel tension elements of the ECSB and measure the current and/or signal on its return. The values measured shall be continuously compared to values that have been correlated to the remaining residual strength of the ECSB through testing. The required RSDD shall not rely upon giant magnetoresistance technology, or other magnetic measurement means, for residual strength detection or monitoring.

   The RSDD must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room or controller location. The removed RSDD must be replaced or returned to proper service within 30 days. If upon routine inspection, the RSDD device is found to be in a nonfunctional state, the date and findings are to be conspicuously documented in the elevator machine room or controller location.

   If upon inspection by Cal/OSHA, the RSDD is found to be nonfunctional or removed, and the required documentation is not in place, the elevator will be removed from service. If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

B. On or before November 21 2021, and thereafter, the above specified and documented RSDD shall be installed and operational on the subject elevator.

C. A successful functionality test of each RSDD shall be conducted once a year, and a copy of completed testing documentation conspicuously located in the machine room or within proximity of the controller.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Schindler Model 5500 Elevator with SIL-Rated Drive to De-energize Drive Motor (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-530	DICK'S Sporting Goods, Inc.	755 E. Shaw Ave. Fresno, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Pete Cuellar, with SCHINDLER ELEVATOR CORPORATION, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

Requested Suspension Means Related Variance:

1. As each pertains to the non-circular elastomeric coated suspension members characteristic of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following Elevator Safety Order incorporated ASME Safety Code for Elevators and Escalators (ASME Code) A17.1-2004 sections and subsections:
    - Section 2.20.1 - Wire rope suspension means;
    - Section 2.20.2.1 - Crosshead data plate;
    - Subsection 2.20.2.2(a) - Wire rope data tag;
    - Subsection 2.20.2.2(f) - ID of steel wire rope as preformed or nonpreformed;
    - Section 2.20.3 - Wire rope safety factor;
    - Section 2.20.4 - Number and diameter of wire ropes;
    - Section 2.20.9.3.4 - Wire rope end connections;
    - Section 2.20.9.5 - Wire rope sockets;

Requested Car Top Railing Inset Variance:

2. As it pertains to top of car railing placement requiring space occupied by upper hoistway mounted elevator machinery characteristic of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following title 8, Elevator Safety Order incorporated ASME Code A17.1-2004 section:

    Section 2.14.1.7.1 - Top of Car Perimeter Railing Placement

Requested Seismic Reset Switch Placement Variance:

3. As it pertains to installation of the requisite seismic reset switch within a "machine room" location incompatible with machine-room-less design of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following title 8, Elevator Safety Order incorporated ASME Code subsection:

    Subsection 8.4.10.1.1(a)(2)(b)--Seismic Reset Switch Placement in Machine Room

Requested Transfer Switch Placement Variance:

4. As it pertains to installation of the requisite transfer switch within a "machine room" location incompatible with machine-room-less design of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following title 8, Elevator Safety Order incorporated ASME Code A17.1-2004 subsection:

   Subsection 2.26.1.4.4(a)--Transfer Switch Placement in Machine Room

Requested SIL Rated Motor Control:

5. As it pertains to the installation of SIL rated solid state controls to inhibit power to the elevator driving motor in lieu of electromechanical relay means, Applicant presently seeks permanent variance from the following Title 8 Elevator Safety Order incorporated ASME Code Section:

   Subsection 2.26.9.6.1 – Means to inhibit power to the elevator driving motor.

Official Notice and Incorporation by Reference - Permanent Variance No. 15-V-349:

6. Per hereby entered stipulation offered at hearing by Applicant, and Cal/OSHA, concerning preexisting Board records, including decisions in matters of permanent variance from Elevator Safety Order requirements, the Board takes Official Notice and expressly incorporates herein by reference, Permanent Variance No. 15-V-349, Decision and Order adopted November 17, 2016, section D.1 - D.75 findings, and therein entered record upon which it was based.

Positions of Cal/OSHA:

7. Having fully reviewed Applicant's request for variance from the above identified Elevator Safety Order requirements, it is the opinion of Cal/OSHA, that conditionally limited grant to Applicant of permanent variance as specified per the below Decision and Order, will provide for elevator safety, and occupational safety and health, equivalent or superior to that of the Elevator Safety Order requirements from which variance is being sought. The present opinion of Cal/OSHA, to any extent it may vary from those previously held with respect to the previously heard matter in Permanent Variance No. 15-V-349, and 26-V-348 regarding SIL control, reflects further scrutiny of the subject matter, consultation between Cal/OSHA, Applicant representatives, and refinement of recommended conditions and limitations.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Applicant is hereby conditionally GRANTED Permanent Variance as stated below, to the limited extent that each enumerated conveyance at the given location shall be subject to conditionally limited permanent variance from the below specified ASME A17.1-2004, requirements incorporated by reference into section 3141.

Suspension Members: Applicant shall conditionally hold permanent variance from the following section 3141 incorporated sections and subsections of ASME A17.1-2004, to the limited extent variance is necessary to provide for use of noncircular elastomeric- coated steel suspension members and concomitant components, and configurations - section 2.20.1; section 2.20.2.1; subsection 2.20.2.2(a); subsection 2.20.2.2(f); section 2.20.3; section 2.20.4: section 2.20.9.3.4; and section 2.20.9.5.4.

Inspection Transfer Switch: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section of ASME A17.1-2004, to the extent variance is necessary to having the requisite inspection transfer switch located elsewhere than a machine room, within a Security Group I enclosure built into an upper floor landing door jam, or within other readily accessible and secure space shared with the motion controller outside the hoistway: section 2.26.1.4.4(a).

Seismic Safety Switch Placement: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section of ASME A17.1-2004, to the limited extent variance is necessary to having the requisite seismic reset switch located elsewhere than a machine room, within a Security Group I enclosure built into an upper floor landing door jam, or within other readily accessible and secure space shared with the motion controller outside the hoistway: section 8.4.10.1.1(a)(2)(b).

Car Top Railing: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section of ASME A17.1-2004, to the limited extent variance is necessary to provide for the below specified insetting of the subject elevator's top of car railing: section 2.14.1.7.1.

Means of Removing Power: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section ASME A17.1-2004, to the extent necessary to permit the use of SIL rated devices and circuits as a means to remove power from the AC driving motor: section 2.26.9.6.1.

Further Conditions and Limitations:

1. The elevator suspension system shall comply with the following:

    1.1. The suspension traction media (STM) members and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:

    - Section 2.20.4.3 - Minimum Number of Suspension Members
    - Section 2.20.3 - Factor of Safety
    - Section 2.20.9 - Suspension Member Fastening

    1.2. Additionally, STMs shall meet or exceed all requirements of ASME A17.6-2010 Standard for Elevator Suspension, Compensation, and Governor Systems, Part 3, Noncircular Elastomeric Coated Steel Suspension Members for Elevators.

    1.3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the STM members and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

1.4. STM member mandatory replacement criteria shall include:

1.4.1 Any exposed wire, strand or cord;

1.4.2 Any wire, strand or cord breaks through the elastomeric coating;

1.4.3 Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric coated steel suspension member;

1.4.4 Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends.

1.5. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.

1.6. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: If a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.

1.7. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1.The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.

1.8. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).

1.9. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. Notwithstanding any less frequent periodic testing requirement per Addendum 1 (Cal/OSHA Circular Letter), the bend cycle monitoring system shall be tested semi-annually in accordance with the procedures required per above Conditions 1.2, and 1.3.

1.10. Each elevator shall be provided with a device that electronically detects a reduction in residual strength of each STM member. The device shall be in compliance with Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Addendum 1, and incorporated herein by reference.

1.11. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.

1.12. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.

1.13. Comprehensive visual inspections of the entire length of each and all installed suspension members, in conformity with above Conditions 1.2 and 1.3 specified criteria, shall be conducted and documented every six months by a CCCM.

1.14. The Applicant shall be subject to the requirements per hereto attached, and inhere incorporated, Addendum 2, "Suspension Means Replacement Reporting Condition."

1.15. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.

2. Inspection Transfer switch and Seismic Reset switch placement and enclosure shall comply with the following:

2.1. If the inspection transfer switch required by ASME A17.1-2004, Rule 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

2.2. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

3. Any and all inset car top railing shall comply with the following:

3.1. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to stand on or climb over the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car top railing.

3.2. The distance that the railing can be inset shall be limited to not more than 12 inches.

3.3. All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.

3.4. The top surface of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

3.5. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING

3.6. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required

bevel).

4. The SIL rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:

   a. The SIL-rated devices and circuits shall consist of a Variodyn SIL3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013, VAF023, or VAF043 labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/FSP 1556.00), and followed by the applicable revision number (as in 968/FSP 1556.00/19).
   b. The devices and circuits shall be certified for compliance with the applicable requirements of ASME A17.1-2013, section 2.26.4.3.2.
   c. The access door or cover of the enclosures containing the SIL rated components shall be clearly labeled or tagged on their exterior with the statement:

Assembly contains SIL rated devices.
Refer to Maintenance Control Program and
Wiring diagrams prior to performing work.

   d. Unique maintenance procedures or methods required for the inspection, testing, or replacement of the SIL rated circuits shall be developed and a copy maintained in the elevator machine/control room/space. The procedures or methods shall include clear color photographs of each SIL rated component, with notations identifying parts and locations.
   e. Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.
   f. Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.
   g. Any alterations to the SIL rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the alteration of SIL rated devices, the alterations shall be made in conformance with ASME A17.1-2013, section 8.7.1.9.
   h. Any replacement of the SIL rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the replacement of SIL rated devices, the replacement shall be made in conformance with ASME A17.1-2013, section 8.6.3.14.
   i. Any repairs to the SIL rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the repair of SIL rated devices, the repairs shall be made in conformance with ASME A17.1-2013, section 8.6.2.6.
   j. Any space containing SIL rated devices and circuits shall be maintained within the temperature and humidity range specified by Schindler Elevator Corporation. The temperature and humidity range shall be posted on each enclosure containing SIL rated devices and circuits.
   k. Field changes to the SIL rated system are not permitted. Any changes to the SIL rated system's devices and circuitry will require recertification and all necessary updates to the documentation and diagrams required by conditions d. and e. above.

5. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by CCCM

having been trained, and competent, to perform those tasks on the Schindler Model 5500 elevator system in accordance with written procedures and criteria, including as required per above Conditions 1.2, and 1.3.

6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
8. This Decision and Order shall remain in effect unless modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

8.1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.

8.2. Each such report shall contain, but not necessarily be limited to, the following information:

a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.

b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).

c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.

d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.

e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.

f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.

g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.

h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

8.3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-531	Dry Creek Commons L.P.	155 Dry Creek Rd. Healdsburg, CA	2

2. The safety order requirements are set out within section 3143 incorporated ASME A17.1-2004, sections 2.18.5.1 and 2.20.4.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference, by the Occupational Safety and Health Standards Board ("Board"), with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.

2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each respective Applicant intends to utilize the KONE, Inc. Monospace 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

   2.20.4 Minimum Number and Diameter of Suspension Ropes

   …The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.
5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

   2.18.5.1 Material and Factor of Safety.

   … [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5…
10. The Board takes notice of section 3141.7, subpart (a)(10):

    A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).

13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.

14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).

15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

$$f = \frac{(S \times N)}{W}$$ *where:*

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

f = the factor of safety from Table 2.20.3

16. ASME A17.1-2010 sections 2.20.3 and 2.20.4 utilize the same formula, but provide for use of suspension ropes having a diameter smaller than 9.5 mm, under specified conditions, key

among them being that use of ropes having a diameter of between 8 mm to 9.5 mm be engineered with a factor of safety of 12 or higher This is a higher minimum factor of safety than that proposed by Applicant but a minimum recommended by Cal/OSHA as a condition of variance necessary to the achieving of safety equivalence to 9.5 mm rope

17. Cal/OSHA is in accord with Applicant, in proposing as a condition of safety equivalence, that periodic physical examination of the wire ropes be performed to confirm the ropes continue to meet the criteria set out in the (Application attachment) *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators*. Adherence to this condition will provide an additional assurance of safety equivalence, regarding smaller minimum diameter suspension rope outer wire performance over the course of its service life.

18. Applicant requests a permanent variance from section 3041, subdivision (e)(1)(C), which states:

    (1) All buildings and structures constructed after the effective date of this order that are provided with one or more passenger elevators shall be provided with not less than one passenger elevator designed and designated to accommodate the loading and transport of an ambulance gurney or stretcher maximum size 22 ½ in. (572 mm) by 75 in. (1.90 m) in its horizontal position and arranged to serve all landings in conformance with the following:

    ...

    (C) The elevator car shall have a minimum inside car platform of 80 in. (2.03 m) wide by 51 in. (1.30 m) deep.

    The intent of this language is to ensure that there is enough space to accommodate the access and egress of a gurney and medical personnel inside of a medical service elevator.

    This standard is made applicable to Group IV by section 3141.7, subdivision (b), which reads, "Elevators utilized to provide medical emergency service shall comply with Group II, section 3041(e)."

19. Applicant proposes to comply with the requirements of the 2019 California Building Code, section 3002.4.1a in the design of its medical emergency service elevator. That section requires:

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    The purpose of this requirement is to ensure that an elevator designated for emergency medical service will accommodate a minimum of two emergency personnel with an ambulance gurney or stretcher.

20. Cal/OSHA, by way of written submission to the record (Exhibit PD3), and stated position at hearing, is of the well informed opinion that grant of permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each Application being the subject of this proceeding, per above section A.1 table, is conditionally GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC) section 3002.4.1a:

       The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevator(s) shall be identified in the building construction documents in accordance with the 2019 California Building Code, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.

15. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

APPENDIX 1

File Number	Elev ID	Minimum Suspension Ropes Per Elevator	Maximum Suspended Weight Per Elevator	Maximum Speed	Rated Capacity
26-V-531	1	7	12247	150	3500
26-V-531	2	7	12247	150	3500

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Schindler Model 3300 Elevators, w/variant Gov. Ropes and Sheaves (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-532	Camino de Salud LP	11432 N Ventura Ave. Ojai, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Pete Cuellar, with SCHINDLER ELEVATOR CORPORATION, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each respective Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations specified in Jurisdictional and Procedural Matters, section 1.
2. The installation contract for these elevators was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders. They utilize non circular elastomeric coated steel belts and specialized suspension means fastenings.
4. No machine room is provided, preventing the inspection transfer switch from being located in the elevator machine room. The lack of machine room also prevents the seismic reset switch from being located in the elevator machine room.
5. Applicant proposes to relocate the inspection transfer switch and seismic reset switch in an alternative enclosure.
6. Due to the use of a 6 mm (0.25 in.) governor rope with 6-strand construction, the provided governor sheave pitch diameter is less than that required by the Elevator Safety Orders.
7. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
8. Applicant proposes to insert the car top railings at the perimeter of the car top.
9. Applicant intends to use an elevator control system, model CO NX100NA or CO NX300NA, with a standalone, solid state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. Relevant Safety Order Provisions

Applicant seeks a permanent variance from section 3141 [ASME A17.1-2004, sections 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(b), 2.14.1.7.1, 2.18.7.4, and 2.26.9.6.1] of the Elevator Safety Orders, with respect to the suspension ropes and connections, inspection transfer switch relocation, seismic reset switch relocation, the location and construction of car-top railings, governor-sheave diameter, and means of removing power from the driving machine motor for one (1) Schindler model 3300 MRL elevator.

The relevant language of those sections are below.

1. Suspension Means
    - Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

- Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low carbon steel) or steel wire ropes, having the commercial classification “Elevator Wire Rope,” or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open hearth or electric furnace process, or their equivalent.

- Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:
  - The crosshead data plate required by 2.16.3 shall bear the following wire rope data:
    - (b) the diameter in millimeters (mm) or inches (in.)

- Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:
  - A metal data tag shall be securely attached to one of the wire rope fastenings. This data tag shall bear the following wire rope data:
  - (a) the diameter in millimeters (mm) or inches (in.)
  - […]
  - (f) whether the ropes were non preformed or preformed

- Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:
  - The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.
  - The factor of safety shall be calculated by the following formula:

$$f = \frac{(S \times N)}{W}$$

- where:
  - N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.
  - S = manufacturer's rated breaking strength of one rope
  - W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

- Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:
    - The minimum number of hoisting ropes used shall be three for traction elevators and two for drum type elevators.
    - Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.
    - The term “diameter,” where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.
    - The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

- Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:
    - Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

- Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:
    - When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire rope retaining clips shall be provided to attach the termination side to the load carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

2. Requested Transfer Switch Placement Variance

- As it pertains to installation of the requisite transfer switch within a “machine room” location incompatible with machine-room-less design of the Schindler Model 3300 elevator, the Applicant presently seeks permanent variance from the following Elevator Safety Order incorporated ASME Code A17.1-2004, subsection:
    - Subsection 2.26.1.4.4(a)--Transfer Switch Placement in Machine Room

- Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:
- When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be
- (a) located in the machine room[.]

3. Requested Seismic Reset Switch Placement Variance

- As it pertains to installation of the requisite seismic reset switch within a “machine room” location incompatible with machine-room-less design of the Schindler Model 3300 elevator, the Applicant presently seeks permanent variance from the following Elevator Safety Order incorporated ASME Code subsection:
  - Subsection 8.4.10.1.1(a)(2)(b)--Seismic Reset Switch Placement in Machine Room

- Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:
  - (a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:
  - (1) seismic zone 3 or greater: a minimum of one seismic switch per building
  - (2) seismic zone 2 or greater:
    - (a) a displacement switch for each elevator
    - (b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

4. Requested Car Top Railing Inset Variance

- As it pertains to top of car railing placement requiring space occupied by upper hoistway mounted elevator machinery characteristic of the Schindler Model 3300 elevator, the Applicant presently seeks permanent variance from the following Elevator Safety Order incorporated ASME Code A17.1-2004, section:
  - Section 2.14.1.7.1—Top of Car Perimeter Railing Placement

- Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:
  - A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

5. Pitch Diameter of Governor Sheaves

- Section 3141 [ASME A17.1-2004, Section 2.18.7.4] states:
  - “The pitch diameter of governor sheaves and governor tension sheaves shall be not less than the product of the diameter of the rope and the applicable multiplier listed in Table 2.18.7.4, based on the rated speed and the number of strands in the rope.”

Table 2.18.7.4 Multiplier for Determining Governor Sheave Pitch Diameter
[from ASME A17.1-2004]

Rated Speed m/s (ft./min)	Number of Strands	Multiplier
1.00 or less (200 or less)	6	42
1.00 or less (200 or less)	8	30
Over 1.0 (over 200)	6	46
Over 1.0 (over 200)	8	32

6. SIL Rated System to Inhibit Current Flow to AC Drive Motor
    - Section 3141[ASME A17.1-2004, section 2.26.9.6.1] states:
        - Two separate means shall be provided to independently inhibit the flow of alternating current through the solid state devices that connect the direct current power source to the alternating current driving motor. At least one of the means shall be an electromechanical relay.

E. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicant's proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Order from which variance is being sought.

F. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above table in Jurisdictional and Procedural Matters shall have permanent variances from sections 3041, subdivision (e)(1)(C) and 3141.7, subdivision (b) subject of the following conditions:

Elevator Safety Orders:

- Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4, and 2.20.9.5.4 (Only to the extent necessary to permit the use of the Elastomeric coated Steel Belts proposed by the Applicant, in lieu of circular steel suspension ropes.);
- Inspection transfer switch: 2.26.1.4.4(a) (Only to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room);
- Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Only to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room. room);

- Car Top Railing: 2.14.1.7.1 (Only to the extent necessary to permit the use of the car top railing system proposed by the Applicant, where the railing system is located inset from the elevator car top perimeter);
- Governor Rope and Sheave: The Applicant shall conditionally hold permanent variance from certain requirements of section 3141, incorporated section of ASME A17.1-2004, to the limited extent variance is necessary to allow for the below specified governor rope and governor sheave parameters: section 2.18.7.4.
- Means of Removing Power: 2.26.9.6.1 (Only to the extent necessary to permit the use of SIL rated devices and circuits as a means to remove power from the AC driving motor, where the redundant monitoring of electrical protective devices is required by the Elevator Safety Orders).

Conditions:

1. The elevator suspension system shall comply to the following:
    a. The suspension traction media (STM) members and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:
        - 2.20.4.3 - Minimum Number of Suspension Members
        - 2.20.3 - Factor of Safety
        - 2.20.9 - Suspension Member Fastening

    b. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the STM members, fastenings, related monitoring and detection systems, and criteria for STM replacement. The Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to the Cal/OSHA upon request.
        - STM member mandatory replacement criteria shall include:
            i. Any exposed wire, strand or cord;
            ii. Any wire, strand or cord breaks through the elastomeric coating;
            iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric coated steel suspension member;
            iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;

    c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.

    d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re used.

e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.

f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).

g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.

h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1 2013, section 2.20.2.1.

j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1 2013, section 2.20.2.2.

k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.

l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, “Suspension Means Replacement Reporting Condition,” Incorporated herein by this reference.

m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1 2004, sections 8.6.1.2 and 8.6.1.4, respectively.

2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

4. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The

Applicant shall not permit anyone to stand or climb over the car top railing.

b. The distance that the railing can be inset shall be limited to not more than 6 inches.

c. All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.

d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).

5. The speed governor rope and sheaves shall comply with the following:

a. The governor shall be used in conjunction with a steel 6 mm (0.25 in.) diameter governor rope with 6 strand, regular lay construction.

b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

c. The governor sheaves shall have a pitch diameter of not less than 200 mm (7.87 in.).

6. The SIL rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:

a. The SIL-rated devices and circuits shall consist of a Variodyn SIL3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013, VAF023, or VAF043 labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/FSP 1556.00), and followed by the applicable revision number (as in 968/FSP 1556.00/19).

b. The devices and circuits shall be certified for compliance with the applicable requirements of ASME A17.1-2013, section 2.26.4.3.2.

c. The access door or cover of the enclosures containing the SIL rated components shall be clearly labeled or tagged on their exterior with the statement:

Assembly contains SIL rated devices.

d. Unique maintenance procedures or methods required for the inspection, testing, or replacement of the SIL rated circuits shall be developed and a copy maintained in the elevator machine/control room/space. The procedures or methods shall include clear color photographs of each SIL rated component, with notations identifying parts and locations.

e. Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.

f. A successful test of the SIL rated devices and circuits shall be conducted initially and not less than annually in accordance with the testing procedure. The test shall demonstrate that SIL rated devices, safety functions, and related circuits operate as intended.

g. Any alterations to the SIL rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the alteration of SIL rated devices, the alterations shall be made in conformance with ASME A17.1-2013, section 8.7.1.9.

h. Any replacement of the SIL rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the replacement of SIL rated devices, the replacement shall be made in conformance with ASME A17.1-2013, section 8.6.3.14.

i. Any repairs to the SIL rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the repair of SIL rated devices, the repairs shall be made in conformance with ASME A17.1-2013, section 8.6.2.6.

j. Any space containing SIL rated devices and circuits shall be maintained within the temperature and humidity range specified by Schindler Elevator Corporation. The temperature and humidity range shall be posted on each enclosure containing SIL rated devices and circuits.

k. Field changes to the SIL rated system are not permitted. Any changes to the SIL rated system's devices and circuitry will require recertification and all necessary updates to the documentation and diagrams required by conditions d. and e. above.

7. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.

8. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per sections 411.2 and 411.3.

9. This Decision and Order shall remain in effect unless duly modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA Elevator Unit HQS

EXHIBIT 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): CAL/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering Section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance file number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME Al7.l-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-533	BC Oregon LLC	4140 Oregon St. San Diego, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

    a. The width and thickness in millimeters or inches;

    b. The manufacturer's rated breaking strength in (kN) or (lbf);

    c. The name of the person or organization that installed the flat coated steel belts;

    d. The month and year the flat coated steel belts were installed;

    e. The month and year the flat coated steel belts were first shortened;

    f. The name or trademark of the manufacturer of the flat coated steel belts; and

    g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

    a. The number of belts;

    b. The belt width and thickness in millimeters or inches; and

    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

    b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

    c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

    d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

    e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:
    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-534	Tule River Tribe Gaming Authority	Eagle Mountain Casino 1850 West St. Porterville, CA	5

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table

PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the

subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance

record subject to ASME A17.1-2004, section 8.6.1.4).

f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

   a. The width and thickness in millimeters or inches;

   b. The manufacturer's rated breaking strength in (kN) or (lbf);

   c. The name of the person or organization that installed the flat coated steel belts;

   d. The month and year the flat coated steel belts were installed;

   e. The month and year the flat coated steel belts were first shortened;

   f. The name or trademark of the manufacturer of the flat coated steel belts; and

   g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

   a. The number of belts;

   b. The belt width and thickness in millimeters or inches; and

   c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

   b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

   c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

e. The applicant shall provide durable signs with lettering not less than ½ inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon request.

12. The speed governor rope and sheaves shall comply with the following:

    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.

    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.

15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.

16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.

17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.

18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives

are to be notified of docketed permanent variance applications.

19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-535	Midtown Flats, LP	860 W. San Carlos St. San Jose, CA	4

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
    a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
    b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
    c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
    d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing**: sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch**: 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter**: 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter**: 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means**: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch**: 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch**: 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions**: 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
    a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
    b. Steel coated belts that have been installed and used on another installation shall not be reused.
    c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
    d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
    e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.

3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.

4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

    a. The width and thickness in millimeters or inches;

    b. The manufacturer's rated breaking strength in (kN) or (lbf);

    c. The name of the person or organization that installed the flat coated steel belts;

    d. The month and year the flat coated steel belts were installed;

    e. The month and year the flat coated steel belts were first shortened;

    f. The name or trademark of the manufacturer of the flat coated steel belts; and

    g. Lubrication information.

5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

    a. The number of belts;

    b. The belt width and thickness in millimeters or inches; and

    c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

7. If there is an inset car top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.

    b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.

    c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.

    d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

    e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).

8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
    a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
    b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
    c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
    d. It shall be used in conjunction with approved car-mounted speed governors only.
    e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
    f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
    h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:
    a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
    b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
    c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:
    a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Otis Medical Emergency Elevator Car Dimensions

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-536	TH II Los Angeles 2617 Crenshaw LP	2617 S. Crenshaw Blvd. Los Angeles, CA	

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact and Applicable Regulations

1. Applicant requests a permanent variance from section 3041, subdivision (e)(1)(C), which states:

> (1) All buildings and structures constructed after the effective date of this order that are provided with one or more passenger elevators shall be provided with not less than one passenger elevator designed and designated to accommodate the loading and transport of an ambulance gurney or stretcher maximum size 22 ½ in. (572 mm) by 75 in. (1.90 m) in its horizontal position and arranged to serve all landings in conformance with the following:
>
> ...
>
> (C) The elevator car shall have a minimum inside car platform of 80 in. (2.03 m) wide by 51 in. (1.30 m) deep.

The intent of this language is to ensure that there is enough space to accommodate the access and egress of a gurney and medical personnel inside of a medical service elevator.

This standard is made applicable to Group IV by section 3141.7, subdivision (b), which reads, "Elevators utilized to provide medical emergency service shall comply with Group II, section 3041(e)."

2. Applicant proposes to comply with the requirements of the 2019 California Building Code, section 3002.4.1a in the design of its medical emergency service elevator. That section requires:
The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

The purpose of this requirement is to ensure that an elevator designated for emergency medical service will accommodate a minimum of two emergency personnel with an ambulance gurney or stretcher.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A.1 table shall have permanent variances from sections 3041, subdivision (e)(1)(C) and 3141.7, subdivision (b) subject of the following conditions:

1. All medical emergency service elevator(s) shall comply with the requirements of the 2019 California Building Code section 3002.4.1a:

   > The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

2. All medical emergency service elevator(s) shall be identified in the building construction documents in accordance with the 2019 California Building Code, section 3002.4a.
3. Dimensional drawings and other information necessary to demonstrate compliance with the conditions of this permanent variance decision shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).
4. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing the elevators shall be provided a copy of this variance decision.
5. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
6. Applicant shall notify its employees and their authorized representative, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
7. This Decision and Order shall remain in effect unless duly modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with then in effect administrative procedures of the Board.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 28, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

KONE Monospace 500 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-537	Lone Oak - Los Angeles, L.L.C.	1334 S. Central Ave. Los Angeles, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each respective Applicant intends to utilize the KONE, Inc. Monospace 500 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

   2.20.4 Minimum Number and Diameter of Suspension Ropes

   …The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.
5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 500 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

   2.18.5.1 Material and Factor of Safety.

   … [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5…
10. The Board takes notice of section 3141.7, subpart (a)(10):

    A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to

activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).

13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.

14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).

15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1-2004, section 2.20.3:

$$f = \frac{(S \times N)}{W}$$ *where:*

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

f = the factor of safety from Table 2.20.3

16. ASME A17.1-2010 sections 2.20.3 and 2.20.4 utilize the same formula, but provide for use of suspension ropes having a diameter smaller than 9.5 mm, under specified conditions, key among them being that use of ropes having a diameter of between 8 mm to 9.5 mm be engineered with a factor of safety of 12 or higher This is a higher minimum factor of safety than that proposed by Applicant but a minimum recommended by Cal/OSHA as a condition of variance necessary to the achieving of safety equivalence to 9.5 mm rope

17. Cal/OSHA is in accord with Applicant, in proposing as a condition of safety equivalence, that periodic physical examination of the wire ropes be performed to confirm the ropes continue to meet the criteria set out in the (Application attachment) *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators*. Adherence to this condition will provide an additional assurance of safety equivalence, regarding smaller minimum diameter suspension rope outer wire performance over the course of its service life.

18. Applicant requests a permanent variance from section 3041, subdivision (e)(1)(C), which states:

    (1) All buildings and structures constructed after the effective date of this order that are provided with one or more passenger elevators shall be provided with not less than one passenger elevator designed and designated to accommodate the loading and transport of an ambulance gurney or stretcher maximum size 22 ½ in. (572 mm) by 75 in. (1.90 m) in its horizontal position and arranged to serve all landings in conformance with the following:

    ...

    (C) The elevator car shall have a minimum inside car platform of 80 in. (2.03 m) wide by 51 in. (1.30 m) deep.

    The intent of this language is to ensure that there is enough space to accommodate the access and egress of a gurney and medical personnel inside of a medical service elevator.

    This standard is made applicable to Group IV by section 3141.7, subdivision (b), which reads, "Elevators utilized to provide medical emergency service shall comply with Group II, section 3041(e)."

19. Applicant proposes to comply with the requirements of the 2019 California Building Code, section 3002.4.1a in the design of its medical emergency service elevator. That section requires:

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    The purpose of this requirement is to ensure that an elevator designated for emergency medical service will accommodate a minimum of two emergency personnel with an ambulance gurney or stretcher.

20. Cal/OSHA, by way of written submission to the record (Exhibit PD3), and stated position at hearing, is of the well informed opinion that grant of permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each Application being the subject of this proceeding, per above section A.1 table, is conditionally GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 500 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room/space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC) section 3002.4.1a:

       The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevator(s) shall be identified in the building construction documents in accordance with the 2019 California Building Code, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.

15. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

APPENDIX 1

File Number	Elev ID	Minimum Suspension Ropes Per Elevator	Maximum Suspended Weight Per Elevator	Maximum Speed	Rated Capacity
26-V-537	1	7	12247	150	3500

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-538	Eastbank QOZB LLC	600 17th St. Bakersfield, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each respective Applicant intends to utilize the KONE, Inc. Monospace 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

   2.20.4 Minimum Number and Diameter of Suspension Ropes

   …The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.
5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

   2.18.5.1 Material and Factor of Safety.

   … [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5…
10. The Board takes notice of section 3141.7, subpart (a)(10):

    A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to

activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).

13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.

14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).

15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

$$f = \frac{(S \times N)}{W}$$ *where:*

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

f = the factor of safety from Table 2.20.3

16. ASME A17.1-2010 sections 2.20.3 and 2.20.4 utilize the same formula, but provide for use of suspension ropes having a diameter smaller than 9.5 mm, under specified conditions, key among them being that use of ropes having a diameter of between 8 mm to 9.5 mm be engineered with a factor of safety of 12 or higher This is a higher minimum factor of safety than that proposed by Applicant but a minimum recommended by Cal/OSHA as a condition of variance necessary to the achieving of safety equivalence to 9.5 mm rope

17. Cal/OSHA is in accord with Applicant, in proposing as a condition of safety equivalence, that periodic physical examination of the wire ropes be performed to confirm the ropes continue to meet the criteria set out in the (Application attachment) *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators*. Adherence to this condition will provide an additional assurance of safety equivalence, regarding smaller minimum diameter suspension rope outer wire performance over the course of its service life.

18. Applicant requests a permanent variance from section 3041, subdivision (e)(1)(C), which states:

    (1) All buildings and structures constructed after the effective date of this order that are provided with one or more passenger elevators shall be provided with not less than one passenger elevator designed and designated to accommodate the loading and transport of an ambulance gurney or stretcher maximum size 22 ½ in. (572 mm) by 75 in. (1.90 m) in its horizontal position and arranged to serve all landings in conformance with the following:

    ...

    (C) The elevator car shall have a minimum inside car platform of 80 in. (2.03 m) wide by 51 in. (1.30 m) deep.

    The intent of this language is to ensure that there is enough space to accommodate the access and egress of a gurney and medical personnel inside of a medical service elevator.

    This standard is made applicable to Group IV by section 3141.7, subdivision (b), which reads, "Elevators utilized to provide medical emergency service shall comply with Group II, section 3041(e)."

19. Applicant proposes to comply with the requirements of the 2019 California Building Code, section 3002.4.1a in the design of its medical emergency service elevator. That section requires:

    The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    The purpose of this requirement is to ensure that an elevator designated for emergency medical service will accommodate a minimum of two emergency personnel with an ambulance gurney or stretcher.

20. Cal/OSHA, by way of written submission to the record (Exhibit PD3), and stated position at hearing, is of the well informed opinion that grant of permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the requirements from which variance has been requested.

D. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Orders from which variance is being sought.

E. Decision and Order

Each Application being the subject of this proceeding, per above section A.1 table, is conditionally GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the following:

    a. The requirements of the 2019 California Building Code (CBC) section 3002.4.1a:

       The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal, open position.

    b. All medical emergency service elevator(s) shall be identified in the building construction documents in accordance with the 2019 California Building Code, section 3002.4a.

    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

14. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.

15. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

APPENDIX 1

File Number	Elev ID	Minimum Suspension Ropes Per Elevator	Maximum Suspended Weight Per Elevator	Maximum Speed	Rated Capacity
26-V-538	1	7	12247	150	3500

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Schindler Model 3300 Elevators, w/variant Gov. Ropes and Sheaves (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-539	Pacific BMW	901 S. Brand Blvd. Glendale, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Pete Cuellar, with SCHINDLER ELEVATOR CORPORATION, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each respective Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations specified in Jurisdictional and Procedural Matters, section 1.
2. The installation contract for these elevators was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders. They utilize non circular elastomeric coated steel belts and specialized suspension means fastenings.
4. No machine room is provided, preventing the inspection transfer switch from being located in the elevator machine room. The lack of machine room also prevents the seismic reset switch from being located in the elevator machine room.
5. Applicant proposes to relocate the inspection transfer switch and seismic reset switch in an alternative enclosure.
6. Due to the use of a 6 mm (0.25 in.) governor rope with 6-strand construction, the provided governor sheave pitch diameter is less than that required by the Elevator Safety Orders.
7. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
8. Applicant proposes to insert the car top railings at the perimeter of the car top.
9. Applicant intends to use an elevator control system, model CO NX100NA or CO NX300NA, with a standalone, solid state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. Relevant Safety Order Provisions

Applicant seeks a permanent variance from section 3141 [ASME A17.1-2004, sections 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(b), 2.14.1.7.1, 2.18.7.4, and 2.26.9.6.1] of the Elevator Safety Orders, with respect to the suspension ropes and connections, inspection transfer switch relocation, seismic reset switch relocation, the location and construction of car-top railings, governor-sheave diameter, and means of removing power from the driving machine motor for one (1) Schindler model 3300 MRL elevator.

The relevant language of those sections are below.

1. Suspension Means
    - Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

- Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low carbon steel) or steel wire ropes, having the commercial classification “Elevator Wire Rope,” or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open hearth or electric furnace process, or their equivalent.

- Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:
  - The crosshead data plate required by 2.16.3 shall bear the following wire rope data:
    - (b) the diameter in millimeters (mm) or inches (in.)

- Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:
  - A metal data tag shall be securely attached to one of the wire rope fastenings. This data tag shall bear the following wire rope data:
  - (a) the diameter in millimeters (mm) or inches (in.)
  - […]
  - (f) whether the ropes were non preformed or preformed

- Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:
  - The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.
  - The factor of safety shall be calculated by the following formula:

$$f = \frac{(S \times N)}{W}$$

- where:
  - N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.
  - S = manufacturer's rated breaking strength of one rope
  - W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

- Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:
    - The minimum number of hoisting ropes used shall be three for traction elevators and two for drum type elevators.
    - Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.
    - The term “diameter,” where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.
    - The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

- Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:
    - Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

- Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:
    - When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire rope retaining clips shall be provided to attach the termination side to the load carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

2. Requested Transfer Switch Placement Variance

- As it pertains to installation of the requisite transfer switch within a “machine room” location incompatible with machine-room-less design of the Schindler Model 3300 elevator, the Applicant presently seeks permanent variance from the following Elevator Safety Order incorporated ASME Code A17.1-2004, subsection:
    - Subsection 2.26.1.4.4(a)--Transfer Switch Placement in Machine Room

- Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:
- When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be
- (a) located in the machine room[.]

3. Requested Seismic Reset Switch Placement Variance

- As it pertains to installation of the requisite seismic reset switch within a “machine room” location incompatible with machine-room-less design of the Schindler Model 3300 elevator, the Applicant presently seeks permanent variance from the following Elevator Safety Order incorporated ASME Code subsection:
  - Subsection 8.4.10.1.1(a)(2)(b)--Seismic Reset Switch Placement in Machine Room

- Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:
  - (a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:
  - (1) seismic zone 3 or greater: a minimum of one seismic switch per building
  - (2) seismic zone 2 or greater:
    - (a) a displacement switch for each elevator
    - (b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

4. Requested Car Top Railing Inset Variance

- As it pertains to top of car railing placement requiring space occupied by upper hoistway mounted elevator machinery characteristic of the Schindler Model 3300 elevator, the Applicant presently seeks permanent variance from the following Elevator Safety Order incorporated ASME Code A17.1-2004, section:
  - Section 2.14.1.7.1—Top of Car Perimeter Railing Placement

- Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:
  - A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

5. Pitch Diameter of Governor Sheaves

- Section 3141 [ASME A17.1-2004, Section 2.18.7.4] states:
  - “The pitch diameter of governor sheaves and governor tension sheaves shall be not less than the product of the diameter of the rope and the applicable multiplier listed in Table 2.18.7.4, based on the rated speed and the number of strands in the rope.”

Table 2.18.7.4 Multiplier for Determining Governor Sheave Pitch Diameter
[from ASME A17.1-2004]

Rated Speed m/s (ft./min)	Number of Strands	Multiplier
1.00 or less (200 or less)	6	42
1.00 or less (200 or less)	8	30
Over 1.0 (over 200)	6	46
Over 1.0 (over 200)	8	32

6. SIL Rated System to Inhibit Current Flow to AC Drive Motor
    - Section 3141[ASME A17.1-2004, section 2.26.9.6.1] states:
        - Two separate means shall be provided to independently inhibit the flow of alternating current through the solid state devices that connect the direct current power source to the alternating current driving motor. At least one of the means shall be an electromechanical relay.

E. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicant's proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Order from which variance is being sought.

F. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above table in Jurisdictional and Procedural Matters shall have permanent variances from sections 3041, subdivision (e)(1)(C) and 3141.7, subdivision (b) subject of the following conditions:

Elevator Safety Orders:

- Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4, and 2.20.9.5.4 (Only to the extent necessary to permit the use of the Elastomeric coated Steel Belts proposed by the Applicant, in lieu of circular steel suspension ropes.);
- Inspection transfer switch: 2.26.1.4.4(a) (Only to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room);
- Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Only to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room. room);

- Car Top Railing: 2.14.1.7.1 (Only to the extent necessary to permit the use of the car top railing system proposed by the Applicant, where the railing system is located inset from the elevator car top perimeter);
- Governor Rope and Sheave: The Applicant shall conditionally hold permanent variance from certain requirements of section 3141, incorporated section of ASME A17.1-2004, to the limited extent variance is necessary to allow for the below specified governor rope and governor sheave parameters: section 2.18.7.4.
- Means of Removing Power: 2.26.9.6.1 (Only to the extent necessary to permit the use of SIL rated devices and circuits as a means to remove power from the AC driving motor, where the redundant monitoring of electrical protective devices is required by the Elevator Safety Orders).

Conditions:

1. The elevator suspension system shall comply to the following:
    a. The suspension traction media (STM) members and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:
        - 2.20.4.3 - Minimum Number of Suspension Members
        - 2.20.3 - Factor of Safety
        - 2.20.9 - Suspension Member Fastening

    b. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the STM members, fastenings, related monitoring and detection systems, and criteria for STM replacement. The Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to the Cal/OSHA upon request.
        - STM member mandatory replacement criteria shall include:
            i. Any exposed wire, strand or cord;
            ii. Any wire, strand or cord breaks through the elastomeric coating;
            iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric coated steel suspension member;
            iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;

    c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.

    d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re used.

e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.

f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).

g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.

h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1 2013, section 2.20.2.1.

j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1 2013, section 2.20.2.2.

k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.

l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, “Suspension Means Replacement Reporting Condition,” Incorporated herein by this reference.

m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1 2004, sections 8.6.1.2 and 8.6.1.4, respectively.

2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

4. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The

Applicant shall not permit anyone to stand or climb over the car top railing.

b. The distance that the railing can be inset shall be limited to not more than 6 inches.

c. All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.

d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).

5. The speed governor rope and sheaves shall comply with the following:

a. The governor shall be used in conjunction with a steel 6 mm (0.25 in.) diameter governor rope with 6 strand, regular lay construction.

b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

c. The governor sheaves shall have a pitch diameter of not less than 200 mm (7.87 in.).

6. The SIL rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:

a. The SIL-rated devices and circuits shall consist of a Variodyn SIL3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013, VAF023, or VAF043 labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/FSP 1556.00), and followed by the applicable revision number (as in 968/FSP 1556.00/19).

b. The devices and circuits shall be certified for compliance with the applicable requirements of ASME A17.1-2013, section 2.26.4.3.2.

c. The access door or cover of the enclosures containing the SIL rated components shall be clearly labeled or tagged on their exterior with the statement:

Assembly contains SIL rated devices.

d. Unique maintenance procedures or methods required for the inspection, testing, or replacement of the SIL rated circuits shall be developed and a copy maintained in the elevator machine/control room/space. The procedures or methods shall include clear color photographs of each SIL rated component, with notations identifying parts and locations.

e. Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.

f. A successful test of the SIL rated devices and circuits shall be conducted initially and not less than annually in accordance with the testing procedure. The test shall demonstrate that SIL rated devices, safety functions, and related circuits operate as intended.

g. Any alterations to the SIL rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the alteration of SIL rated devices, the alterations shall be made in conformance with ASME A17.1-2013, section 8.7.1.9.

h. Any replacement of the SIL rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the replacement of SIL rated devices, the replacement shall be made in conformance with ASME A17.1-2013, section 8.6.3.14.

i. Any repairs to the SIL rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the repair of SIL rated devices, the repairs shall be made in conformance with ASME A17.1-2013, section 8.6.2.6.

j. Any space containing SIL rated devices and circuits shall be maintained within the temperature and humidity range specified by Schindler Elevator Corporation. The temperature and humidity range shall be posted on each enclosure containing SIL rated devices and circuits.

k. Field changes to the SIL rated system are not permitted. Any changes to the SIL rated system's devices and circuitry will require recertification and all necessary updates to the documentation and diagrams required by conditions d. and e. above.

7. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.

8. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per sections 411.2 and 411.3.

9. This Decision and Order shall remain in effect unless duly modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA Elevator Unit HQS

EXHIBIT 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): CAL/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering Section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance file number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME Al7.l-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

TK Elevator Evolution (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-540	6171 Mission Gorge Owner, LP	6168 Decena Dr. San Diego, CA	4

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, James Day, with TK Elevator Corporation, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Applicant proposes to utilize inset car top railings and guards in compliance with ASME 17.1-2013, section 2.14.1.7.1 and the Vivante Westside, LLC File No. 18-V-364 (Nov. 20, 2020) decision (Vivante). Applicant further claims that the request is consistent with the Vivante, the Mack Urban, LLC, Permanent Variance No. 15-V-349 (Nov. 17, 2016), and the Patton Equities, LLC Permanent Variance No. 20-V-128 (Nov. 12, 2020) decisions (Patton Equities).
2. Applicant proposes to utilize noncircular elastomeric-coated steel belts ("ECSBs") rather than steel ropes in a machine room-less ("MRL") elevator installation, with updated data plates, data tags, and wedge sockets designed for use with ECSBs, as well as the appropriate factor of safety criteria conforming to ASME 17.1-2013, with a continuous residual strength detection device ("RSDD") compliant with the San Francisco Public Works (Permanent Variance No. 21-V-061, et al.) decisions.
3. The installation shall utilize the TK Elevator Model 104DP001 RSDD, accepted by Cal/OSHA on May 4, 2021.
4. Applicant proposes to comply with ASME A17.1-2013 sections 2.26.9.3, "Protection Against Failures", rather than the requirements of 2.26.9.3 and 2.26.9.4 in the ASME 2004 code.
5. Applicant proposes to use TKE's control systems, using the TKE TAC32T Controller with SIL3 rated elements, to provide equivalent safety to ASME A17.1-2004, section 2.26.9.4 as a means to inhibit flow of Alternating Current to the Driving Motor in compliance with ASME A17.1-2013, section 2.26.9.6.
6. Applicant proposes to locate the Inspection Transfer Switch within the machinery/control room/space in the MRL installation, in compliance with ASME 17.1-2013, section 2.26.1.4.
7. Applicant proposes to locate the Seismic-Operation Reset Switch in the machinery/control room/space in the MRL installation.

D. Relevant Safety Orders

Variance Request No. 1 (ASME A17.1-2004, section 2.14.1.7.1)

2.14.1.7.1 A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

Variance Request No. 2A (ASME A17.1-2004, section 2.20.1)

2.20.1 Suspension Means

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused.

Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process or their equivalent.

Variance Request No. 2B (ASME A17.1-2004, section 2.20.2[.1])

2.20.2.1 On Crosshead Data Plate.

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(a) the number of ropes

(b) the diameter in millimeters (mm) or inches (in.)

(c) the manufacturer's rated breaking strength per rope in kilo Newton (kN) or pounds (lb)

Variance Request No. 2C (ASME A17.1-2004, section 2.20.2.2)

2.20.2.2 On Rope Data Tag.

A metal data tag shall be securely attached to one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[…]

(f) whether the ropes were nonpreformed or preformed

[…]

Variance Request No. 2D. (ASME A17.1-2004, section 2.20.3)

2.20.3 Factor of Safety

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{(S \times N)}{W}$$

where:

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Variance Request No. 2E (ASME A17.1-2004, section 2.20.4)

2.20.4 Minimum Number and Diameter of Suspension Ropes

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term" diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Variance Request No. 2F (ASME A17.1-2004, section 2.20.9[.1])

2.20.9 Suspension-Rope Fastening

2.20.9.1 Type of Rope Fastenings. The car and counterweight ends of suspension wire ropes, or the stationary hitch-ends where multiple roping is used, shall be fastened in such a manner that all portions of the rope, except the portion inside the rope sockets, shall be readily visible.

Fastening shall be

(a) by individual tapered rope sockets (see 2.20.9.4) or other types of rope fastenings that have undergone adequate tensile engineering tests, provided that

(1) such fastenings conform to 2.20.9.2 and 2.20.9.3;

(2) the rope socketing is such as to develop at least 80% of the ultimate breaking strength of the strongest rope to be used in such fastenings; or

(b) by individual wedge rope sockets (see 2.20.9.5); and

(c) U-bolt-type rope clamps or similar devices shall not be used for suspension rope fastenings.

Variance Request No. 3 (ASME A17.1-2004, section 2.26.9.4)

2.26.9.4 Redundant devices used to satisfy 2.26.9.3 in the determination of the occurrence of a single ground, or the failure of any single magnetically operated switch, contactor or relay, or of any single solid state device, or any single device that limits the leveling or truck zone, or a software system failure, shall be checked prior to each start of the elevator from a landing, when on automatic operation. When a single ground or failure, as specified in 2.26.9.3, occurs, the car shall not be permitted to restart. Implementation of redundancy by a software system is permitted, provided that the removal of power from the driving-machine motor and brake shall not be solely dependent on software-controlled means.

Variance Request No. 4 (ASME A17.1-2004, section 2.26.9.6.1)

2.26.9.6.1 Two separate means shall be provided to independently inhibit the flow of alternating-current through the solid state devices that connect the direct-current power source to the alternating-current driving motor. At least one of the means shall be an electromechanical relay.

Variance Request No. 5 (ASME A17.1-2004, section 2.26.1.4.4(a))

2.26.1.4.4 Machine Room Inspection Operation

(a) When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be located in the machine room.

Variance Request No. 6 (ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b))

8.4.10.1.1 Earthquake Equipment (See Also Fig. 8.4.10.1.1)

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room [see 8.4.10.1.3(i)]

E. Decision and Order

Applicant is hereby conditionally GRANTED Permanent Variance as specified below, and to the limited extent, as of the date the Board adopts this Proposed Decision, with respect to the section A specified number of TKE EVO 200 elevator(s), at the specified location, each shall conditionally hold permanent variance from the following subparts of ASME A17.1-2004, currently incorporated by reference into section 3141 of the Elevator Safety Orders:

- Car-Top Railing: 2.14.1.7.1 (Limited to the extent necessary to permit the use of an inset car-top railing)
- Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, and 2.20.9.1

(Limited to the extent necessary to permit the use of the elastomeric-coated steel belts in lieu of circular steel suspension ropes)

- Inspection transfer switch: 2.26.1.4.4(a) (Limited to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room)
- Software Reliant Means to Remove Power: 2.26.9.4 (Limited to the extent necessary to permit the exclusive use of SIL-rated software systems as a means to remove power from the driving machine motor and brake)
- SIL-Rated Circuitry to Inhibit Current Flow: 2.26.9.6.1 (Limited to the extent necessary to permit the use of SIL-rated circuitry in place of an electromechanical relay to inhibit current flow to the drive motor)
- Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Limited to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room)

Inset Car Top Railing (Variance Request No. 1):

1.0 Any and all inset car top railings shall comply with the following:

1.1 Serviceable equipment shall be positioned so that mechanics and inspectors do not have to stand on or climb over the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit trained elevator mechanics or elevator service personnel to stand or climb over the car top railing.

1.2 The distance that the railing can be inset shall be limited to not more than six inches (6”).

1.3 All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds two inches (2”), shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.

1.4 The top surface of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4” diagonal red and white stripes.

1.5 The Applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING

1.6 The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).

Suspension Means (Variance Request No. 2):

2.0 The elevator suspension system shall comply with the following:

2.1 The elastomeric coated steel belts (ECSBs) and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:

2.20.4.3 – Minimum Number of Suspension Members

2.20.3 – Factor of Safety

2.20.9 – Suspension Member Fastening

2.2 Additionally, ECSBs shall meet or exceed all requirements of ASME A17.6-2010, Standard for Elevator Suspension, Compensation, and Governor Systems, Part 3 Noncircular Elastomeric Coated Steel Suspension Members for Elevators.

2.3 The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the ECSBs and fastenings and related monitoring and detection systems and criteria for ECSB replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

2.4 ECSB mandatory replacement criteria shall include:

2.4.1. Any exposed wire, strand or cord;

2.4.2. Any wire, strand or cord breaks through the elastomeric coating;

2.4.3. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric coated steel suspension member;

2.4.4. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends.

2.5 Traction drive sheaves must have a minimum diameter of 112 mm. The maximum speed of ECSBs running on 112 mm drive sheaves shall be no greater than 6.1 m/s.

2.6 If any one (1) ECSB needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: If a new suspension member is damaged during installation, and prior to any contemporaneously installed ECSB having been placed into service, it is permissible to replace the individual damaged suspension member. ECSBs that have been installed on another installation shall not be re used.

2.7 A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.

2.8 A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).

2.9 An elevator controller integrated bend cycle monitoring system shall monitor actual ECSB bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that

the ECSB makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single ECSB member drops below (60%) sixty percent of full rated strength. The monitoring means shall prevent the car from restarting. Notwithstanding any less frequent periodic testing requirement per Addendum 2 (Cal/OSHA Circular Letter), the bend cycle monitoring system shall be tested semiannually in accordance with the procedures required per above Conditions 2.3 and 2.4.

2.10 The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.

2.11 A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.

2.12 Comprehensive visual inspections of the entire length of each and all installed suspension members, in conformity with above Conditions 2.3 and 2.4 specified criteria, shall be conducted and documented every six (6) months by a CCCM.

2.13 The Applicant shall be subject to the requirements per hereto attached, and inhere incorporated, Addendum 1, “Suspension Means Replacement Reporting Condition.”

2.14 Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2, and 8.6.1.4, respectively.

2.15 The subject elevators(s) shall be equipped with a TK Elevator Model 104DP001 Residual Strength Detection Device accepted by Cal/OSHA on May 4, 2021 or Cal/OSHA accepted equivalent device.

Control and Operating Circuits
Combined Software Redundant Devices with Software Removal of Power from Driving Motor and Brake (Variance Request No. 3)
Removal of Power from Driving Motor Without Electro-mechanical Switches (Variance Request No. 4)

3.0 The SIL rated circuitry used to provide device/circuit redundancy and to inhibit electrical current flow in accordance with ASME A17.1-2004, sections 2.26.9.4 and 2.26.9.6.1 shall comply with the following:

3.1 The SIL rated systems and related circuits shall consist of:

3.1.1. ELGO LIMAX33 RED, (aka LIMAX3R-03-050-0500-CNXTG-RJU), Safe Magnetic Absolute Shaft Information System, labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/A 163), followed by the applicable revision number (as in 968/A 163.07/19).

3.1.2 Printed circuit board assembly SSOA (6300 AHE001), labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/FSP 1347), followed by the applicable revision number (as in 968/FSP 1347.00/16).

3.1.3 Two circuit board components (Serializer S3I and S3O), each labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization and the SIL certification number (968/A 162), followed by the applicable revision number (as in 968/A 162.04/18)

3.2 The software system and related circuits shall be certified for compliance with the applicable requirements of ASME A17.1-2013, section 2.26.4.3.2.

3.3 The access door or cover of the enclosures containing the SIL rated components shall be clearly labeled or tagged on their exterior with the statement:

Assembly contains SIL rated devices.
Refer to maintenance Control Program and wiring diagrams
prior to performing work.

3.4 Unique maintenance procedures or methods required for the inspection, testing, or replacement of the SIL rated circuits shall be developed and a copy maintained in the elevator machine/control room/space. The procedures or methods shall include clear color photographs of each SIL rated component, with notations identifying parts and locations.

3.5 Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.

3.6 A successful test of the SIL rated circuits shall be conducted initially and not less than annually in accordance with the testing procedure. The test shall demonstrate that SIL rated devices, safety functions, and related circuits operate as intended.

3.7 Any alterations to the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the alteration of SIL rated devices, the alterations shall be made in conformance with ASME A17.1-2013, section 8.7.1.9.

3.8 Any replacement of the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the replacement of SIL rated devices, the replacement shall be made in conformance with ASME A17.1-2013, section 8.6.3.14.

3.9 Any repairs to the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the repair of SIL rated devices, the repairs shall be made in conformance with ASME A17.1-2013, section 8.6.2.6.

3.10 Any space containing SIL rated circuits shall be maintained within the temperature and humidity range specified by TKE. The temperature and humidity range shall be posted on each enclosure containing SIL rated software or circuits.

3.11 Field software changes to the SIL rated system are not permitted. Any changes to the SIL rated system’s circuitry will require recertification and all necessary updates to the documentation and diagrams required by Conditions 3.4 and 3.5 above.

Inspection Transfer Switch and Seismic Reset Switch (Variance Request Nos. 5 and 6):

4.0 Inspection Transfer switch and Seismic Reset switch placement and enclosure shall comply with the following:

4.1 If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4, does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

4.2 If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

5.0 The elevator shall be serviced, maintained, adjusted, tested, and inspected only by CCCM having been trained, and competent, to perform those tasks on the TKE EVO 200 elevator system in accordance with written procedures and criteria, including as required per above Conditions 2.3, and 2.4.

6.0 Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in full service prior to the Permit to Operate being issued by Cal/OSHA.

7.0 The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2, and 411.3.

8.0 This Decision and Order shall remain in effect unless duly modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed by the Board's regulations.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

SUSPENSION MEANS REPLACEMENT REPORTING REQUIREMENTS

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, Attn: Engineering section, 2 MacArthur Place Suite 700, Santa Ana, CA 92707.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The Stateissued conveyance number, complete address, and Permanent Variance file number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, and certification expiration date of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which

case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2(a) above.

ADDENDUM 2

CIRCULAR LETTER E-10-04, October 6, 2010

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a nonfunctional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be nonfunctional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA Elevator Unit HQ

ADDENDUM 3

A. A Residual Strength Detection Device (RSDD) shall continuously monitor all Elastomeric Coated Steel Belt suspension members (ECSB), automatically stopping the car if the residual strength of any belt drops below 60%. The RSDD shall prevent the elevator from restarting after a normal stop at a landing. The RSDD shall device shall apply a form of electrical current and/or signal through the entire length of the steel tension elements of the ECSB and measure the current and/or signal on its return. The values measured shall be continuously compared to values that have been correlated to the remaining residual strength of the ECSB through testing. The required RSDD shall not rely upon giant magnetoresistance technology, or other magnetic measurement means, for residual strength detection or monitoring.

   The RSDD must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room or controller location. The removed RSDD must be replaced or returned to proper service within 30 days. If upon routine inspection, the RSDD device is found to be in a nonfunctional state, the date and findings are to be conspicuously documented in the elevator machine room or controller location.

   If upon inspection by Cal/OSHA, the RSDD is found to be nonfunctional or removed, and the required documentation is not in place, the elevator will be removed from service. If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

B. On or before November 21 2021, and thereafter, the above specified and documented RSDD shall be installed and operational on the subject elevator.

C. A successful functionality test of each RSDD shall be conducted once a year, and a copy of completed testing documentation conspicuously located in the machine room or within proximity of the controller.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

TK Elevator Evolution (Group IV)

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-541	4417 Rutherford Owner, LLC	4417 30th St. San Diego, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, James Day, with TK Elevator Corporation, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Applicant proposes to utilize inset car top railings and guards in compliance with ASME 17.1-2013, section 2.14.1.7.1 and the Vivante Westside, LLC File No. 18-V-364 (Nov. 20, 2020) decision (Vivante). Applicant further claims that the request is consistent with the Vivante, the Mack Urban, LLC, Permanent Variance No. 15-V-349 (Nov. 17, 2016), and the Patton Equities, LLC Permanent Variance No. 20-V-128 (Nov. 12, 2020) decisions (Patton Equities).
2. Applicant proposes to utilize noncircular elastomeric-coated steel belts ("ECSBs") rather than steel ropes in a machine room-less ("MRL") elevator installation, with updated data plates, data tags, and wedge sockets designed for use with ECSBs, as well as the appropriate factor of safety criteria conforming to ASME 17.1-2013, with a continuous residual strength detection device ("RSDD") compliant with the San Francisco Public Works (Permanent Variance No. 21-V-061, et al.) decisions.
3. The installation shall utilize the TK Elevator Model 104DP001 RSDD, accepted by Cal/OSHA on May 4, 2021.
4. Applicant proposes to comply with ASME A17.1-2013 sections 2.26.9.3, "Protection Against Failures", rather than the requirements of 2.26.9.3 and 2.26.9.4 in the ASME 2004 code.
5. Applicant proposes to use TKE's control systems, using the TKE TAC32T Controller with SIL3 rated elements, to provide equivalent safety to ASME A17.1-2004, section 2.26.9.4 as a means to inhibit flow of Alternating Current to the Driving Motor in compliance with ASME A17.1-2013, section 2.26.9.6.
6. Applicant proposes to locate the Inspection Transfer Switch within the machinery/control room/space in the MRL installation, in compliance with ASME 17.1-2013, section 2.26.1.4.
7. Applicant proposes to locate the Seismic-Operation Reset Switch in the machinery/control room/space in the MRL installation.

D. Relevant Safety Orders

Variance Request No. 1 (ASME A17.1-2004, section 2.14.1.7.1)

2.14.1.7.1 A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

Variance Request No. 2A (ASME A17.1-2004, section 2.20.1)

2.20.1 Suspension Means

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused.

Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process or their equivalent.

Variance Request No. 2B (ASME A17.1-2004, section 2.20.2[.1])

2.20.2.1 On Crosshead Data Plate.

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(a) the number of ropes

(b) the diameter in millimeters (mm) or inches (in.)

(c) the manufacturer's rated breaking strength per rope in kilo Newton (kN) or pounds (lb)

Variance Request No. 2C (ASME A17.1-2004, section 2.20.2.2)

2.20.2.2 On Rope Data Tag.

A metal data tag shall be securely attached to one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[…]

(f) whether the ropes were nonpreformed or preformed

[…]

Variance Request No. 2D. (ASME A17.1-2004, section 2.20.3)

2.20.3 Factor of Safety

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{(S \times N)}{W}$$

where:

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Variance Request No. 2E (ASME A17.1-2004, section 2.20.4)

2.20.4 Minimum Number and Diameter of Suspension Ropes

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term" diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Variance Request No. 2F (ASME A17.1-2004, section 2.20.9[.1])

2.20.9 Suspension-Rope Fastening

2.20.9.1 Type of Rope Fastenings. The car and counterweight ends of suspension wire ropes, or the stationary hitch-ends where multiple roping is used, shall be fastened in such a manner that all portions of the rope, except the portion inside the rope sockets, shall be readily visible.

Fastening shall be

(a) by individual tapered rope sockets (see 2.20.9.4) or other types of rope fastenings that have undergone adequate tensile engineering tests, provided that

(1) such fastenings conform to 2.20.9.2 and 2.20.9.3;

(2) the rope socketing is such as to develop at least 80% of the ultimate breaking strength of the strongest rope to be used in such fastenings; or

(b) by individual wedge rope sockets (see 2.20.9.5); and

(c) U-bolt-type rope clamps or similar devices shall not be used for suspension rope fastenings.

Variance Request No. 3 (ASME A17.1-2004, section 2.26.9.4)

2.26.9.4 Redundant devices used to satisfy 2.26.9.3 in the determination of the occurrence of a single ground, or the failure of any single magnetically operated switch, contactor or relay, or of any single solid state device, or any single device that limits the leveling or truck zone, or a software system failure, shall be checked prior to each start of the elevator from a landing, when on automatic operation. When a single ground or failure, as specified in 2.26.9.3, occurs, the car shall not be permitted to restart. Implementation of redundancy by a software system is permitted, provided that the removal of power from the driving-machine motor and brake shall not be solely dependent on software-controlled means.

Variance Request No. 4 (ASME A17.1-2004, section 2.26.9.6.1)

2.26.9.6.1 Two separate means shall be provided to independently inhibit the flow of alternating-current through the solid state devices that connect the direct-current power source to the alternating-current driving motor. At least one of the means shall be an electromechanical relay.

Variance Request No. 5 (ASME A17.1-2004, section 2.26.1.4.4(a))

2.26.1.4.4 Machine Room Inspection Operation

(a) When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be located in the machine room.

Variance Request No. 6 (ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b))

8.4.10.1.1 Earthquake Equipment (See Also Fig. 8.4.10.1.1)

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room [see 8.4.10.1.3(i)]

E. Decision and Order

Applicant is hereby conditionally GRANTED Permanent Variance as specified below, and to the limited extent, as of the date the Board adopts this Proposed Decision, with respect to the section A specified number of TKE EVO 200 elevator(s), at the specified location, each shall conditionally hold permanent variance from the following subparts of ASME A17.1-2004, currently incorporated by reference into section 3141 of the Elevator Safety Orders:

- Car-Top Railing: 2.14.1.7.1 (Limited to the extent necessary to permit the use of an inset car-top railing)
- Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, and 2.20.9.1

(Limited to the extent necessary to permit the use of the elastomeric-coated steel belts in lieu of circular steel suspension ropes)

- Inspection transfer switch: 2.26.1.4.4(a) (Limited to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room)
- Software Reliant Means to Remove Power: 2.26.9.4 (Limited to the extent necessary to permit the exclusive use of SIL-rated software systems as a means to remove power from the driving machine motor and brake)
- SIL-Rated Circuitry to Inhibit Current Flow: 2.26.9.6.1 (Limited to the extent necessary to permit the use of SIL-rated circuitry in place of an electromechanical relay to inhibit current flow to the drive motor)
- Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Limited to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room)

Inset Car Top Railing (Variance Request No. 1):

1.0 Any and all inset car top railings shall comply with the following:

1.1 Serviceable equipment shall be positioned so that mechanics and inspectors do not have to stand on or climb over the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit trained elevator mechanics or elevator service personnel to stand or climb over the car top railing.

1.2 The distance that the railing can be inset shall be limited to not more than six inches (6”).

1.3 All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds two inches (2”), shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.

1.4 The top surface of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4” diagonal red and white stripes.

1.5 The Applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing; each sign shall state:

CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING

1.6 The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).

Suspension Means (Variance Request No. 2):

2.0 The elevator suspension system shall comply with the following:

2.1 The elastomeric coated steel belts (ECSBs) and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:

2.20.4.3 – Minimum Number of Suspension Members

2.20.3 – Factor of Safety

2.20.9 – Suspension Member Fastening

2.2 Additionally, ECSBs shall meet or exceed all requirements of ASME A17.6-2010, Standard for Elevator Suspension, Compensation, and Governor Systems, Part 3 Noncircular Elastomeric Coated Steel Suspension Members for Elevators.

2.3 The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the ECSBs and fastenings and related monitoring and detection systems and criteria for ECSB replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

2.4 ECSB mandatory replacement criteria shall include:

2.4.1. Any exposed wire, strand or cord;

2.4.2. Any wire, strand or cord breaks through the elastomeric coating;

2.4.3. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric coated steel suspension member;

2.4.4. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends.

2.5 Traction drive sheaves must have a minimum diameter of 112 mm. The maximum speed of ECSBs running on 112 mm drive sheaves shall be no greater than 6.1 m/s.

2.6 If any one (1) ECSB needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: If a new suspension member is damaged during installation, and prior to any contemporaneously installed ECSB having been placed into service, it is permissible to replace the individual damaged suspension member. ECSBs that have been installed on another installation shall not be re used.

2.7 A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.

2.8 A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).

2.9 An elevator controller integrated bend cycle monitoring system shall monitor actual ECSB bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that

the ECSB makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single ECSB member drops below (60%) sixty percent of full rated strength. The monitoring means shall prevent the car from restarting. Notwithstanding any less frequent periodic testing requirement per Addendum 2 (Cal/OSHA Circular Letter), the bend cycle monitoring system shall be tested semiannually in accordance with the procedures required per above Conditions 2.3 and 2.4.

2.10 The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.

2.11 A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.

2.12 Comprehensive visual inspections of the entire length of each and all installed suspension members, in conformity with above Conditions 2.3 and 2.4 specified criteria, shall be conducted and documented every six (6) months by a CCCM.

2.13 The Applicant shall be subject to the requirements per hereto attached, and inhere incorporated, Addendum 1, “Suspension Means Replacement Reporting Condition.”

2.14 Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2, and 8.6.1.4, respectively.

2.15 The subject elevators(s) shall be equipped with a TK Elevator Model 104DP001 Residual Strength Detection Device accepted by Cal/OSHA on May 4, 2021 or Cal/OSHA accepted equivalent device.

Control and Operating Circuits
Combined Software Redundant Devices with Software Removal of Power from Driving Motor and Brake (Variance Request No. 3)
Removal of Power from Driving Motor Without Electro-mechanical Switches (Variance Request No. 4)

3.0 The SIL rated circuitry used to provide device/circuit redundancy and to inhibit electrical current flow in accordance with ASME A17.1-2004, sections 2.26.9.4 and 2.26.9.6.1 shall comply with the following:

3.1 The SIL rated systems and related circuits shall consist of:

3.1.1. ELGO LIMAX33 RED, (aka LIMAX3R-03-050-0500-CNXTG-RJU), Safe Magnetic Absolute Shaft Information System, labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/A 163), followed by the applicable revision number (as in 968/A 163.07/19).

3.1.2 Printed circuit board assembly SSOA (6300 AHE001), labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/FSP 1347), followed by the applicable revision number (as in 968/FSP 1347.00/16).

3.1.3 Two circuit board components (Serializer S3I and S3O), each labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization and the SIL certification number (968/A 162), followed by the applicable revision number (as in 968/A 162.04/18)

3.2 The software system and related circuits shall be certified for compliance with the applicable requirements of ASME A17.1-2013, section 2.26.4.3.2.

3.3 The access door or cover of the enclosures containing the SIL rated components shall be clearly labeled or tagged on their exterior with the statement:

Assembly contains SIL rated devices.
Refer to maintenance Control Program and wiring diagrams
prior to performing work.

3.4 Unique maintenance procedures or methods required for the inspection, testing, or replacement of the SIL rated circuits shall be developed and a copy maintained in the elevator machine/control room/space. The procedures or methods shall include clear color photographs of each SIL rated component, with notations identifying parts and locations.

3.5 Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.

3.6 A successful test of the SIL rated circuits shall be conducted initially and not less than annually in accordance with the testing procedure. The test shall demonstrate that SIL rated devices, safety functions, and related circuits operate as intended.

3.7 Any alterations to the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the alteration of SIL rated devices, the alterations shall be made in conformance with ASME A17.1-2013, section 8.7.1.9.

3.8 Any replacement of the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the replacement of SIL rated devices, the replacement shall be made in conformance with ASME A17.1-2013, section 8.6.3.14.

3.9 Any repairs to the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the repair of SIL rated devices, the repairs shall be made in conformance with ASME A17.1-2013, section 8.6.2.6.

3.10 Any space containing SIL rated circuits shall be maintained within the temperature and humidity range specified by TKE. The temperature and humidity range shall be posted on each enclosure containing SIL rated software or circuits.

3.11 Field software changes to the SIL rated system are not permitted. Any changes to the SIL rated system’s circuitry will require recertification and all necessary updates to the documentation and diagrams required by Conditions 3.4 and 3.5 above.

Inspection Transfer Switch and Seismic Reset Switch (Variance Request Nos. 5 and 6):

4.0 Inspection Transfer switch and Seismic Reset switch placement and enclosure shall comply with the following:

4.1 If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4, does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

4.2 If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

5.0 The elevator shall be serviced, maintained, adjusted, tested, and inspected only by CCCM having been trained, and competent, to perform those tasks on the TKE EVO 200 elevator system in accordance with written procedures and criteria, including as required per above Conditions 2.3, and 2.4.

6.0 Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in full service prior to the Permit to Operate being issued by Cal/OSHA.

7.0 The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2, and 411.3.

8.0 This Decision and Order shall remain in effect unless duly modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed by the Board's regulations.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

SUSPENSION MEANS REPLACEMENT REPORTING REQUIREMENTS

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, Attn: Engineering section, 2 MacArthur Place Suite 700, Santa Ana, CA 92707.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The Stateissued conveyance number, complete address, and Permanent Variance file number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, and certification expiration date of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which

case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2(a) above.

ADDENDUM 2

CIRCULAR LETTER E-10-04, October 6, 2010

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a nonfunctional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be nonfunctional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA Elevator Unit HQ

ADDENDUM 3

A. A Residual Strength Detection Device (RSDD) shall continuously monitor all Elastomeric Coated Steel Belt suspension members (ECSB), automatically stopping the car if the residual strength of any belt drops below 60%. The RSDD shall prevent the elevator from restarting after a normal stop at a landing. The RSDD shall device shall apply a form of electrical current and/or signal through the entire length of the steel tension elements of the ECSB and measure the current and/or signal on its return. The values measured shall be continuously compared to values that have been correlated to the remaining residual strength of the ECSB through testing. The required RSDD shall not rely upon giant magnetoresistance technology, or other magnetic measurement means, for residual strength detection or monitoring.

   The RSDD must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room or controller location. The removed RSDD must be replaced or returned to proper service within 30 days. If upon routine inspection, the RSDD device is found to be in a nonfunctional state, the date and findings are to be conspicuously documented in the elevator machine room or controller location.

   If upon inspection by Cal/OSHA, the RSDD is found to be nonfunctional or removed, and the required documentation is not in place, the elevator will be removed from service. If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

B. On or before November 21 2021, and thereafter, the above specified and documented RSDD shall be installed and operational on the subject elevator.

C. A successful functionality test of each RSDD shall be conducted once a year, and a copy of completed testing documentation conspicuously located in the machine room or within proximity of the controller.

BEFORE THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
DEPARTMENT OF INDUSTRIAL RELATIONS
STATE OF CALIFORNIA

In the Matter of Application for Permanent Variance Regarding:

Schindler Model S5000 MRL

Permanent Variance No: See section A.1 table below

PROPOSED DECISION

Hearing Date: October 21, 2026
Location: Zoom

A. Subject Matter

1. The applicants ("Applicants") below have applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations. Unless otherwise noted, all references in this matter are to the California Code of Regulations, title 8. The variance applications are as follows:

Permanent Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
26-V-542	US 1902 Wilshire Owner, LLC	1902 Wilshire Blvd. Santa Monica, CA	2

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.

B. Procedural

1. This hearing was held on October 21, 2026 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.

2. At the hearing, Pete Cuellar, with SCHINDLER ELEVATOR CORPORATION, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On October 21, 2026, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each respective Applicant intends to utilize Schindler model S5000 MRL elevator cars, in the quantity, at the locations, specified per the above section A.1 table.
2. The installation contract for these elevators was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. The Schindler model S5000 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders. They utilize non-circular elastomeric-coated steel belts and specialized suspension means fastenings that are not in compliance with current ESO. This belt type suspension is similar to that found on other elevator products (e.g., Otis Gen2, Schindler 3300, and ThyssenKrupp EVO).
4. No machine room is provided, preventing the inspection transfer switch from being located in the elevator machine room. The lack of machine room also prevents the seismic reset switch from being located in the elevator machine room.
5. Applicant proposes to relocate the inspection transfer switch and seismic reset switch in an alternative enclosure.
6. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
7. Applicant proposes to insert the car-top railings at the perimeter of the car top.
8. Due to the use of a 6 mm (0.25 in.) governor rope with 6 strand construction, the provided governor sheave pitch diameter is less than that required by the ESO.
9. The Applicant intends to install a governor rope that provides an increased factor of safety in order to compensate for the use of a governor sheave of reduced diameter.
10. Applicant intends to use an elevator control system, model CO NX100NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. Relevant Safety Order Provisions

Applicant seeks a permanent variance from section 3141 [ASME A17.1-2004, sections 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(b), 2.14.1.7.1, 2.18.7.4, and 2.26.9.6.1]. The relevant language of those sections are below.

Suspension Means

Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low carbon steel) or steel wire ropes, having the commercial classification “Elevator Wire Rope,” or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open hearth or electric furnace process, or their equivalent.

Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(b) the diameter in millimeters (mm) or inches (in.)

Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:

A metal data tag shall be securely attached to one of the wire rope fastenings. This data tag shall bear the following wire rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[…]

(f) whether the ropes were non preformed or preformed

Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{(S \times N)}{W}$$

where:

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term “diameter,” where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:

Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:

When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire rope retaining clips shall be provided to attach the termination side to the load carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

The intent of these code requirements is to ensure that the material used for suspending an elevator car is steel wire rope. Steel wire rope has long been the only accepted method for suspending elevators due to its ability to be visually examined and its proven robust construction. The steel wire rope and attachment specifications contained in the current Elevator Safety Orders are not uniformly suitable for application to the proposed non=circular elastometric coated steel belt suspension due to its dissimilar construction and fastening to that of wire rope.

Inspection Transfer Switch

Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:

When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be

(a) located in the machine room[.]

Seismic Reset Switch

Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

Car-Top Railings

Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:

A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

Governor Sheave Diameter

Section 3141 [ASME A17.1-2004, Section 2.18.7.4] states:

“The pitch diameter of governor sheaves and governor tension sheaves shall be not less than the product of the diameter of the rope and the applicable multiplier listed in Table 2.18.7.4, based on the rated speed and the number of strands in the rope.”

Table 2.18.7.4 Multiplier for Determining Governor Sheave Pitch Diameter
[from ASME A17.1-2004]

Rated Speed m/s (ft./min)	Number of Strands	Multiplier
1.00 or less (200 or less)	6	42

1.00 or less (200 or less)	8	30
Over 1.0 (over 200)	6	46
Over 1.0 (over 200)	8	32

The intent of this code section is to prevent the bending of the governor rope around a sheave of insufficient diameter, which could reduce its life expectancy and working strength.

ASME A17.1-2022, Sections 2.18.5.1 states in part:

"Governor rope shall be made of iron, steel, monel metal, phosphor bronze, or stainless steel. They shall be of a regular-lay construction and not less than 6 mm (0.25 in.) in diameter.

The factor of safety of governor ropes shall be not less than 5. Where provided, ropes of a diameter less than 9.5 mm (0.375 in.) shall have a factor of safety not less than 8 and shall be a six-, eight-, or nine-strand construction. Tiller-rope construction shall not be used."

ASME A17.1-2022, Sections 2.18.7.4 states:

"Where governor ropes of a diameter of 9.5 mm (0.375 in.) or greater are used, the pitch diameter of governor sheaves and governor tension sheaves shall be not less than the product of the diameter of the rope and the applicable multiplier listed in Table 2.18.7.4, based on the rated speed and the number of strands in the rope. Where governor ropes of a diameter less than 9.5 mm (0.375 in.) are used, the governor sheave shall have a pitch diameter not less than the product of the diameter of the rope and a multiplier of 30."

SIL-Rated System to Inhibit Current Flow to AC Drive Motor

Section 3141[ASME A17.1-2004, section 2.26.9.6.1] states:

Two separate means shall be provided to independently inhibit the flow of alternating current through the solid state devices that connect the direct current power source to the alternating current driving motor. At least one of the means shall be an electromechanical relay.

E. Conclusive Findings

A preponderance of the evidence supports the finding that each Applicants' proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety and health to that which would prevail upon full compliance with the requirements of the Elevator Safety Order from which variance is being sought.

F. Decision and Order:

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A.1 shall have permanent variances from sections 3041,

subdivision (e)(1)(C) and 3141.7, subdivision (b) subject of the following conditions:

Elevator Safety Orders:

- Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4, and 2.20.9.5.4 (Only to the extent necessary to permit the use of the Elastomeric coated Steel Belts proposed by the Applicant, in lieu of circular steel suspension ropes.);
- Inspection transfer switch: 2.26.1.4.4(a) (Only to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room);
- Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Only to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room. room);
- Car Top Railing: 2.14.1.7.1 (Only to the extent necessary to permit the use of the car top railing system proposed by the Applicant, where the railing system is located inset from the elevator car top perimeter);
- Pitch Diameter: 2.18.7.4 (Only to the extent necessary to permit the use of the speed governor system proposed by the Applicant, where the rope sheave pitch diameter is reduced to 200 mm [7.87 in.]); and
- Means of Removing Power: 2.26.9.6.1 (Only to the extent necessary to permit the use of SIL rated devices and circuits as a means to remove power from the AC driving motor, where the redundant monitoring of electrical protective devices is required by the Elevator Safety Orders).

Conditions:

1. The elevator suspension system shall comply to the following:

    a. The suspension traction media (STM) members and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:
        2.20.4.3 - Minimum Number of Suspension Members
        2.20.3 - Factor of Safety
        2.20.9 - Suspension Member Fastening

    b. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the STM members, fastenings, related monitoring and detection systems, and criteria for STM replacement. The Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to the Cal/OSHA upon request.

        STM member mandatory replacement criteria shall include:

        i. Any exposed wire, strand or cord;

        ii. Any wire, strand or cord breaks through the elastomeric coating;

        iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric coated steel suspension member;

        iv. Any deformation in the elastomeric suspension member such as, but not limited to,

kinks or bends;

c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.

d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.

e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1 2013, section 8.6.4.19.12.

f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).

g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.

h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.

j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.

k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.

l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, “Suspension Means Replacement Reporting Condition,” Incorporated herein by this reference.

m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.

2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in

the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

4. If there is an inset car top railing:

   a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car-top railing.

   b. The distance that the railing can be inset shall be limited to not more than 6 inches.

   c. All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car-top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.

   d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

   e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING

   f. The Group IV requirements for car-top clearances shall be maintained (car-top clearances outside the railing will be measured from the car top and not from the required bevel).

5. The speed governor rope and sheaves shall comply with the following:

   a. The governor shall be used in conjunction with a steel 6 mm (0.25 in.) diameter governor rope with 6 strand, regular lay construction.

   b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.

   c. The governor sheaves shall have a pitch diameter of not less than 200 mm (7.87 in.).

6. The SIL-rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:

   a. The SIL-rated devices and circuits shall consist of a Variodyn SIL-3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF023, VAF043, or VAF050, labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/FSP 1556.00), and followed by the

applicable revision number (as in 968/FSP 1556.02/18).

b. The devices and circuits shall be certified for compliance with the applicable requirements of ASME A17.1-2013, section 2.26.4.3.2.

c. The access door or cover of the enclosures containing the SIL rated components shall be clearly labeled or tagged on their exterior with the statement:

Assembly contains SIL-rated devices
Refer to Maintenance Control Program and
wiring diagrams prior to performing work

d. Unique maintenance procedures or methods required for the inspection, testing, or replacement of the SIL-rated circuits shall be developed and a copy maintained in the elevator machine/control room/space. The procedures or methods shall include clear color photographs of each SIL-rated component, with notations identifying parts and locations.

e. Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.

f. A successful test of the SIL-rated devices and circuits shall be conducted initially and not less than annually in accordance with the testing procedure. The test shall demonstrate that SIL-rated devices, safety functions, and related circuits operate as intended.

g. Any alterations to the SIL-rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the alteration of SIL-rated devices, the alterations shall be made in conformance with ASME A17.1-2022, section 8.7.1.9.

h. Any replacement of the SIL-rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the replacement of SIL-rated devices, the replacement shall be made in conformance with ASME A17.1-2022, section 8.6.3.14.

i. Any repairs to the SIL-rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the repair of SIL-rated devices, the repairs shall be made in conformance with ASME A17.1-2022, section 8.6.2.6.

j. Any space containing SIL-rated devices and circuits shall be maintained within the temperature and humidity range specified by Schindler Elevator Corporation. The temperature and humidity range shall be posted on each enclosure containing SIL-rated devices and circuits.

k. Field changes to the SIL-rated system are not permitted. Any changes to the SIL-rated system's devices and circuitry will require recertification and all necessary updates to the documentation and diagrams required by conditions d. and e. above.

7. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.

8. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for

permanent variance per California Code of Regulations, sections 411.2 and 411.3.

9. This Decision and Order shall remain in effect unless duly modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

Pursuant to section 426(b), the Proposed Decision is submitted to the Board for consideration of adoption.

DATED: October 27, 2026

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device’s functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA Elevator Unit HQS

EXHIBIT 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): CAL/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering Section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
    a. The State-issued conveyance number, complete address, and Permanent Variance file number that identifies the permanent variance.
    b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
    c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
    d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
    e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
    g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
    h. All information provided on the crosshead data plate per ASME Al7.l-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
    i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.