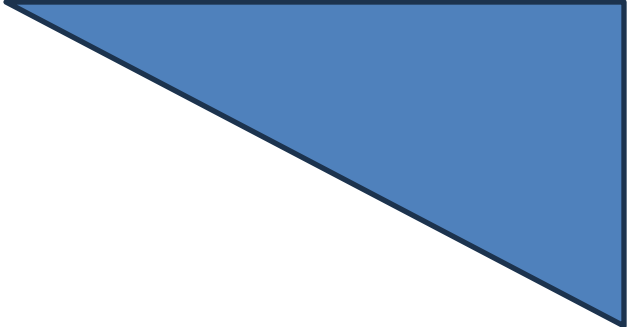




Occupational Safety and Health Standards Board

Public and Business Meeting

Meeting Agenda

**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**

PLEASE NOTE: In accordance with section 11123 of the Government Code, Board members as well as members of the public may elect to participate via videoconference.

**November 20, 2025
10:00 a.m.**

In-Person:

Elihu Harris State Building
Auditorium
1515 Clay Street
Oakland, CA 94612

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.

If attending the meeting remotely and 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. PRESENTATIONS**

- A. Loading Procedures and Safety Protocols for the Wyssen Avalanche Towner
Jamie Yount, CEO, Wyssen USA Inc.

- Public Comment
- Board Member Comments and Questions

- B. Avalanche Products Initiation Systems with Safety Fuse
 Braden Schmidt, President CIL Avalanche Ltd.

- Public Comment
- Board Member Comments and Questions

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.

For item C below, public comment will be limited to two minutes per speaker or four minutes for speakers requiring concurrent English translation.

A. **PROPOSED VARIANCE DECISIONS FOR ADOPTION**

- [Consent Calendar](#)
- Vote on consent calendar

B. **REPORTS**

- Executive Officer's Report
- Legislative Update
- Cal/OSHA Report
- Autonomous Agricultural Equipment Advisory Committee Update
- State Response Subcommittee Report

C. **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 to act on 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_nacomment@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.

D. 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).).

E. CLOSED SESSION

- Public comment on Closed Session Agenda Items

Pending Decisions

- Permanent Variance No. 20-V-096 (Tutor Perini/O&G JV)
- Permanent Variance No. 23-V-580 (Dragados)
- Permanent Variance No. 20-V-300 (Pepsi Bottling Group, LLC)

Personnel

F. RETURN TO OPEN SESSION

- Report from closed session

G. ADJOURNMENT OF THE MEETING

Next Meeting: December 18, 2025
Cal/EPA Building
Sierra Hearing Room
1001 I Street
Sacramento, CA 95814
10:00 a.m.

CLOSED SESSION

- If necessary, consideration of personnel matters. (GC section 11126(a)(1)).
- If necessary, consideration of pending litigation pursuant to GC section 11126(e)(1).
- If necessary, to deliberate on a pending decision. (GC section 11126(c)(3)).

PUBLIC COMMENT**Public Hearing**

During the 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. However, given time constraints, there is no guarantee that all who have signed up will be able to address the Board.

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. The total time for public comment is 120 minutes unless extended by the Board Chair.

Business Meeting Non-Agendized

During the Business Meeting Non-Agendized, members of the public can address the Board on items of interest that are within the Board's jurisdiction but are not on the noticed agenda. The Board is not permitted to take action on items that are not on the noticed agenda but may refer items to staff for future consideration. The Board reserves the right to limit the time for speakers.

DISABILITY ACCOMMODATION NOTICE

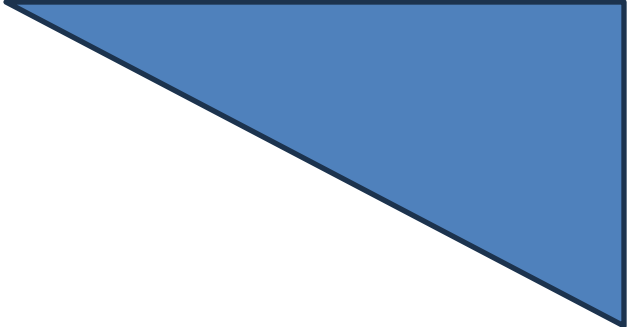
Under Government Code section 11123(a), all meetings of a state body are open and public, and all persons are permitted to attend any meeting of a state body, except as otherwise provided in the Bagley-Keene Open Meeting Act.

If disability-related modifications or accommodations are required to participate in the meeting, please contact: DIO@DIR.CA.GOV. To ensure the availability of your requested accommodation, please submit your request at least 10 days in advance.

Please contact the [California Relay Service](#) by dialing 711 or 1-800-855-3000 (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.



Occupational Safety and Health Standards Board

Public and Business Meeting

Meeting Notice

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833
(916) 274-5721
Website address www.dir.ca.gov/oshsb

**NOTICE OF PUBLIC MEETING AND BUSINESS MEETING
OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

Pursuant to Government Code section 11346.4 and the provisions of Labor Code Sections 142.1, 142.2, 142.3, 142.4, and 144.6, the Occupational Safety and Health Standards Board ("Board") of the State of California has set the time and place for a Public Meeting and Business Meeting:

QR Code for Access:



On November 20, 2025, at 10:00 a.m. Elihu Harris State Building
Auditorium
1515 Clay Street
Oakland, California 94612

as well as via the following:

- Videoconference at <https://tkoworks.zoom.us/j/87501250331>
- Teleconference at (669) 444-9171 (Webinar ID 875 0125 0331)
- Live video stream and audio stream (English and Spanish) at: <https://videobookcase.com/california/oshsb/>

At the Public Meeting, the Board will make time available to receive comments or proposals from interested persons on any item concerning occupational safety and health.

At the Business Meeting, the Board will conduct its monthly business.

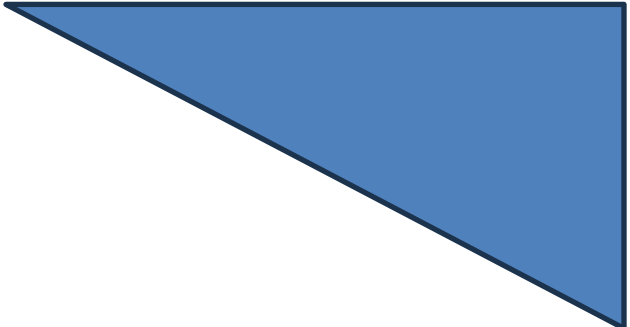
DISABILITY ACCOMMODATION NOTICE: Disability accommodation is available upon request. Any person with a disability requiring an accommodation, auxiliary aid or service, or a modification of policies or procedures to ensure effective communication and access to the public hearings/meetings of the Board should contact the Disability Accommodation Coordinator at (916) 274-5721 or the state-wide Disability Accommodation Coordinator at 1 (866) 326-1616 (toll free). The state-wide Coordinator can also be reached through the California Relay Service, by dialing 711 or 1 (800) 735-2929 (TTY) or 1 (800) 855-3000 (TTY-Spanish).

Accommodations can include modifications of policies or procedures or provision of auxiliary aids or services. Accommodations include, but are not limited to, an Assistive Listening System (ALS), a Computer-Aided Transcription System or Communication Access Realtime Translation (CART), a sign-language interpreter, documents in Braille, large print or on computer disk, and audio cassette recording. Accommodation requests should be made as soon as possible. Requests for an ALS or CART should be made no later than five (5) days before the hearing.

OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD

A handwritten signature in black ink, appearing to read "Joseph M. Alioto Jr.". Below the signature is a horizontal line, and below the line is the printed name "JOSEPH M. ALIOTO JR., Chairman".

JOSEPH M. ALIOTO JR., Chairman



Occupational Safety and Health Standards Board

Business Meeting Proposed Variance Decisions

**CONSENT CALENDAR—PROPOSED VARIANCE DECISIONS
NOVEMBER 20, 2025, MONTHLY BUSINESS MEETING
OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED DECISIONS FOR BOARD CONSIDERATION, HEARD ON OCTOBER 22, 2025

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
1. 22-V-572M1	Banner Catalina Storage LLC	ELEVATOR	GRANT
2. 25-V-001	AvilaLight LLC	ELEVATOR	GRANT
3. 25-V-117	Domeyko Taylor RE 1, LLC	ELEVATOR	GRANT
4. 25-V-323	Affirmed Housing Group	ELEVATOR	GRANT
5. 25-V-325	San Diego State University	ELEVATOR	GRANT
6. 25-V-326	Long Beach Rescue Mission	ELEVATOR	GRANT
7. 25-V-327	Lubisich Bros Investments LLC	ELEVATOR	GRANT
8. 25-V-328	Saggio Hills Lot 14, L.P.	ELEVATOR	GRANT
9. 25-V-329	Sharon Heights Golf & Country Club	ELEVATOR	GRANT
10. 25-V-330	California Institute of Technology	ELEVATOR	GRANT
11. 25-V-331	CLPF - West Hollywood, L.P.	ELEVATOR	GRANT
12. 25-V-332	San Diego State University	ELEVATOR	GRANT
13. 25-V-333	California Institute of Technology	ELEVATOR	GRANT
14. 25-V-334	3451 Motor Ave., LLC	ELEVATOR	GRANT
15. 25-V-335	3592 Eastham Owner, LLC	ELEVATOR	GRANT
16. 25-V-336	3592 Eastham Owner, LLC	ELEVATOR	GRANT
17. 25-V-337	4670 Beverly LLC	ELEVATOR	GRANT
18. 25-V-338	CRP The Pardes 2 LP	ELEVATOR	GRANT
19. 25-V-341	Broadstone Crossing Phase II, LLC	ELEVATOR	GRANT
20. 25-V-342	Main Promenade Inc.	ELEVATOR	GRANT

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
21. 25-V-343	333 Palm Development LLC, a Delaware Limited Liability Company	ELEVATOR	GRANT

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

<u>In the Matter of Application to Modify Permanent Variance by:</u>	Permanent Variance No: 22-V-572M1 <u>PROPOSED DECISION</u>
Banner Catalina Storage LLC	Hearing Date: October 22, 2025 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
22-V-572	Banner Catalina Storage LLC	621 S. Catalina 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 22, 2025, via videoconference, by the Board with Hearing Officer Kelly Chau, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, James Day, with TK Elevator, appeared on behalf of each Applicant; and David Morris 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 22, 2025, 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. 22-V-572 and any previously granted modifications 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. 22-V-572M1 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. 22-V-572 and any previously granted modifications 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 22-V-572 and any previously granted modifications 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. 22-V-572, to be:

627 S. Catalina St.
Los Angeles, CA

D. Decision and Order

1. Permanent Variance Application No. 22-V-572M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each conveyance being the subject of Permanent Variance No. 22-V-572 and any previously granted modifications therewith, shall have the following address designation:

627 S. Catalina St.
Los Angeles, CA
2. Permanent Variance No. 22-V-572 and any previously granted modifications 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. 22-V-572M1.
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, 2025



Kelly Chau, 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: AvilaLight LLC	Permanent Variance No.: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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A. Subject Matter

1. Each applicant ("Applicant") below has 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-001	AvilaLight LLC	490 Front Street Avila Beach, 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 22, 2025, via teleconference, by the Board, with Hearing Officer Kelly Chau, 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, Keven Kwok of GVK Elevator Consulting Services, Inc. appeared on behalf of Applicant; David Morris appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. 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	Permanent Amended Variance Application
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 22, 2025, the hearing and record closed, and the matter taken under submission by the Hearing Officer.

C. Findings of Fact

1. Applicant intends to use a direct-acting hydraulic elevator manufactured by Gillespie Corporation at the locations and in the numbers stated in the above section A.1 table.
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 (ESO).
3. Due to the shallow pit depth, less than minimum vertical clearances between the pit and car mounted equipment, and vertical clearances within the personnel refuge space, compliance with the ESO cannot be achieved.
4. The applicant intends to use the Gillespie system to achieve the required clearances by engaging and vertically securing the platform at a height above sill level to allow for minimum refuge space clearances required by the ESO.
5. Due to the shallow pit condition not having adequate depth to accommodate a code compliant platform guard (apron), the Applicant intends to use a retractable platform guard (apron) that retracts when it comes in contact with rubber bumpers affixed to the pit floor.
6. The code requires the platform guard to have a straight vertical face of not less than 525 mm (21 in.). The code also requires that no part of the elevator or equipment attached strike any part of the pit floor.
7. The applicant is seeking a permanent variance from CCR Title 8, Elevator Safety Orders' Section 3141 [ASME A17.1-2004]:
 - Section 3.2.1 – Minimum pit depth
 - Section 3.4.1.1 – Equipment clearance in an elevator pit
 - Section 3.4.1.3(a) – Available refuge space in an elevator pit
 - Section 3.4.1.5 – Prohibiting car equipment from striking the floor
 - Section 3.15.1.1 – with 2.15.9.2(b) being relevant - Car platform guard (apron)
8. The Applicant has indicated that the minimum horizontal area of the refuge space for this elevator is intended to be 600 mm x 1200 mm (24 in. x 47 in.). 36 vertical inches, within the refuge area, will

be provided when the Gillespie bumpers are fully deployed.

9. The Applicant proposes to install a two-section retractable platform guard (apron) consisting of a movable upper section guard plate and a moveable lower section guard plate. To monitor the retractable mechanism, an electrical switching system will be provided to monitor for malfunction.
10. The applicant's proposed platform guard is similar to installations for which a permanent variance has previously been granted, with the exception that the proposed upper section guard plate is moveable, whereas in prior installations it was stationary. (Permanent Variance No. 09-V-077)
11. The Applicant intends to install a retractable platform guard "Telescopic Car Apron" that will automatically deploy when the car leaves the bottom floor landing and retracts upon arrival to the bottom floor landing. This is accomplished by installing a two section, upper and lower, moveable metal guard equipped with switch(es) for monitoring the deployment/retraction of the moveable guards. If there is a failure of the deployment or retraction of the moveable guard, the elevator will stop until the retractable guard is repaired or manually reset.
12. The Applicant intends to provide the following cautionary signage, visible from the entrance of the pit, on the retractable platform guard and the hoistway enclosure.

"DANGER LOW CLEARANCE"
13. Cal/OSHA notes the Occupational Safety and Health Standards Board have granted a permanent variance for a similar elevator configuration utilizing the "Gillespie Shallow Pit Safety System." (OSHSB File No. 09-V-077)
14. The Applicant has indicated, via email correspondences, that the minimum horizontal area of the refuge space for this elevator is intended to be 600 mm x 1200 mm (24 in. x 47 in.). 36 vertical inches, within the refuge area, will be provided when the Gillespie bumpers are fully deployed.
15. The Applicant asserts equivalent safety is provided through the use of a system of devices designed to automatically deploy physical barriers to restrict the downward movement of the elevator car when the elevator pit is intentionally or unintentionally accessed. The system is sold by the Gillespie Corporation and is known as the "Gillespie Shallow Pit Safety System". The system features include:
 - Safety bumpers: These devices will deploy automatically to restrict the downward movement of the elevator car if the elevator pit is accessed or occupied. Switches are used to monitor safety bumper position.
 - Pressure mat: This device will be installed on the pit floor to detect if the pit has become occupied.
 - Auxiliary power system: This system allows for the safety system to remain responsive if the power is removed from the elevator.

- Alarm: This device warns when the pit is occupied without the safety bumpers being in the deployed position.
- Indicator lights: These devices are located in the controller and indicate the deployment status of the safety bumpers.

16. 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. Applicable Regulations

1. **Minimum Pit Depth**

Section 3141 [ASME A17.1-2004, Section **3.2.1**] states, in part:

The pit depth shall not be less than is required for the installation of the buffers, hydraulic jack, platform guard (apron), and all other elevator equipment located therein, and to provide the minimum bottom clearance and runby required by 3.4.1 and 3.4.2, respectively.

2. & 3. **Clearance and Refuge Space**

Section 3141 [ASME A17.1-2004 Section **3.4.1.1 and 3.4.1.3**] of the Elevator Safety Orders states in part:

“3.4.1.1 When the car rests on its fully compressed buffers or bumpers, there shall be a vertical clearance of not less than 600 mm (24 in.) between the pit floor and the lowest structural or mechanical part, equipment, or device installed beneath the car platform, including a plunger-follower guide, if provided, except as specified in 3.4.1.2.

3.4.1.3 In no case shall the available refuge space be less than either of the following:

(a) a horizontal area 600 mm x 1200 mm (24 in. x 47 in.), with a height of 600 mm (24 in.)

(b) a horizontal area 450 mm x 900 mm (18 in. x 35 in.), with a height of 1070 mm (42 in.)”

The intent of these regulations is to require adequate clearances in order to provide a sufficient refuge area for persons working in an elevator pit in the event of the unintended descent of the car.

4. **Equipment Striking Pit Floor**

Section 3141 [ASME A17.1-2004, Section 3.4.1.5] states:

“3.4.1.5 When the car is resting on its fully compressed buffers or bumpers, no equipment traveling with the car, including a plunger follower guide, if provided, shall strike any part of the pit or any equipment mounted therein.”

The intent of this code section is to prevent any equipment attached to the elevator car from striking any part of the pit. This could damage the elevator equipment which may result in unsafe operation or injury.

5. Platform Guard

Section 3141 [ASME A17.1-2004, Section 3.15.1.1] states, in part:

“3.15.1.1 Direct-acting hydraulic elevators shall be provided with car frames and platforms conforming to 2.15, subject to the modification hereinafter specified.

2.15.9.2 The guard plate shall have a straight vertical face, extending below the floor surface of the platform, conforming to one of the following:

(a) where the elevator is required to conform to 2.19.2.2(b) the depth of the truck zone, where provided, plus 75 mm (3 in.), but in no case less than 1220 mm (48 in.)

(b) where the elevator is not required to conform to 2.19.2.2(b) the depth of the leveling zone or truck zone, where provided, plus 75 mm (3 in.); but in no case less than 525 mm (21 in.)”

The intent of these code section is to guard a hazardous opening to the hoistway if the elevator car is intentionally or unintentionally positioned above the landing zone, by providing a fixed guard that extends below the car platform to obstruct the opening.

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, 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:

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gillespie shallow Pit Safety Systems and retractable platform guard that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

Elevator Safety Orders:

- 1) Minimum Pit Depth: 3.2.1 (Only to the extent necessary to permit the use of a reduced pit depth); and
- 2) Bottom Car Clearances: 3.4.1.1 (Only to the extent necessary to permit a reduced clearance between the pit floor and equipment installed beneath the car platform when the car rests on its fully compressed buffers or bumpers); and
- 3) Refuge Space: 3.4.1.3 (Only to the extent necessary to permit the use of a safety bumper to limit the down directional travel in order to provide minimum vertical refuge space clearance); and
- 4) Car Equipment Striking Pit Floor: 3.4.1.5 (Only to the extent necessary to allow the retractable platform guard to contact the pit floor); and
- 5) Platform Guard: 3.15.1.1 (Only to the extent necessary to permit the use of a two-section retractable platform guard (apron) where the depth of the pit is not sufficient enough to prevent the platform guard from contacting the floor).

Recommended Conditions:

1. The elevator and its component systems shall conform to the plans set forth and representations made in the application that is the subject of this proceeding (the application received by the Board on or about October 22, 2024, as modified by the amendment distributed to the parties by the Board on or about June 19, 2025), unless this Decision and Order provides otherwise.
2. The Applicant shall utilize the Gillespie Shallow Pit Safety System referred to in their application, as amended.
3. The system operation and instruction manual(s) for the Gillespie Shallow Pit Safety System shall be available in the elevator machine room at all times.

1), 2), & 3), 4) Minimum Pit Depth

4. Safety bumpers, pressure mat, deployment zone switches, audible alarms, indicator lights, and auxiliary power system shall be installed and maintained to provide elevator personnel and other authorized personnel safe access to the pit. The devices shall operate according to the manufacturer's system operation, instruction and testing manual(s).
5. A refuge space in the pit shall be provided in accordance with ASME A17.1-2004, Section 3.4.1.3 when the elevator car is position on the deployed safety bumpers.

6. Durable signs with lettering not less than two inches high on a contrasting background shall be permanently and conspicuously posted on the platform guard and in the pit, and those signs shall read:

DANGER LOW CLEARANCE

5) Platform Guard (Apron)

7. In lieu of a straight vertical face (one piece) platform guard (aprons) required by Section 3141 [ASME A17.1-2004, Section 3.15.1.1], a two-section retractable platform guard consisting of a movable upper section guard plate and a moveable lower section guard plate shall be installed and conformed to the following:
 - a. The movable upper section guard plate shall have a straight vertical face, extending below the floor surface of the platform; the height shall be not less than 285 mm (11.25 in.).
 - b. The moveable lower section guard plate shall:
 - ii. Be provided with smooth metal guard plates of not less than 1.5 mm (0.059 in) thick steel, or material of equivalent strength and stiffness, adequately reinforced and braced to the car platform and conforming to ASME A17.1-2004, Sections 2.15.9.1 and 2.15.9.4.
 - i. Comply with ASME A17.1-2004, Section 2.15.9.3;
 - iii. The overall height of the two-section retractable platform guard shall be not less than 533 mm (21 in.) when the moveable lower section is in the fully extended (deployed) position.
 - iv. Rubber bumpers shall be provided and securely affixed to the concrete pit floor to absorb the impact when the platform guard comes into contact with them;
 - v. Be provided with an electrical switch that indicates to the control system that the upper and lower retractable platform guards are in their fully extended position (when car is away from the bottom landing), and be provided with a second electrical switch that indicates to the control system that the moveable lower and upper sections are in a partial or fully retracted position (when the car is at the bottom landing), thereby overriding the first switch. Failure of either of these electrical switches or of the mechanical parts that activate these electrical switches shall cause the controller to remove power from the hydraulic machine.

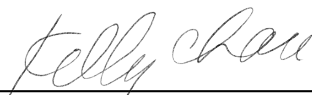
- vi. When the car is at or below the lowest landing sill, the retracted platform guard shall not extend above the height of the lowest landing sill.
- 8. An annual test shall be conducted by a Certified Competent Conveyance Mechanic (CCCM) employed by a Certified Qualified Conveyance Company (CQCC) which maintains and services the elevator, to demonstrate that the Gillespie Shallow Pit Safety System's auxiliary power system functions in accordance with manufacturer's system operation, instruction and testing manual(s).
- 9. The system operation, instruction, and testing manual(s) for the Gillespie Shallow Pit Safety System shall be available in the machine room at all times.
- 10. The Applicant shall develop, implement, and document a safety training program that shall provide training to Applicant employees. In addition, the Applicant shall not allow contractor personnel to work on any elevator subject to this variance unless the personnel in question have been trained in accordance with that safety training program, and that training is documented. Components of the training shall include, but not necessarily be limited to, the following: pit access 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.
- 11. 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 the building where the elevator(s) subject to this variance are located. The Applicant shall not allow a Certified Qualified Conveyance Company (CQCC) or any other contractor personnel to work in the pit of an 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 Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevator 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" issued before the elevator is placed in service.
- 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 Gillespie Shallow Pit Safety 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. 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.

16. 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 22, 2025



Kelly Chau, Hearing Officer

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

<u>In the Matter of Application for Permanent Variance Regarding:</u> TK Elevator EOX	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-117	Domeyko Taylor RE 1, LLC	583 F St. Lincoln, 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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; and David Morris 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 22, 2025, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. 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 (lowcarbon 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 openhearth 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 wirerope 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 wirerope fastenings. This data tag shall bear the following wirerope 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 drumtype 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 hitches 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) Uboltttype 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 drivingmachine motor and brake shall not be solely dependent on softwarecontrolled 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 alternatingcurrent through the solid state devices that connect the directcurrent power source to the alternatingcurrent 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)]

D. 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 the Division.
 - 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.

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 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 A17.1-2019, 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 HW, 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/74/220, 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, 2025



Kelly Chau, 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 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, 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

<u>In the Matter of Application for Permanent Variance Regarding:</u> KONE Monospace 500 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-323	Affirmed Housing Group	11675 George Cooke Express Dr. San Diego, 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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; and David Morris 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 22, 2025, 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 provide 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:

$$W = \frac{(S \times N)}{f} \quad \text{where:}$$

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 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.

14. 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.
15. 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.
16. 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 28, 2025



Kelly Chau, Hearing Officer

APPENDIX 1

File Number	Elevator ID	Minimum Suspension Ropes Per Elevator	Maximum Suspended Weight Per Elevator	Maximum Speed	Rated Capacity
25-V-323	2	7	12247	150	3500
25-V-323	3	8	13207	200	3500
25-V-323	4	8	13207	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

<u>In the Matter of Application for Permanent Variance Regarding:</u>	Permanent Variance No: See section A.1 table below
Otis Medical Emergency Elevator Car Dimensions	<u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 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-325	San Diego State University	SDSU Amenity Building 1055 Aztec Circle Dr. San Diego, 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, and Wolter Geesink from Otis Elevator appeared on behalf of each Applicant; and David Morris 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
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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 22, 2025, 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:

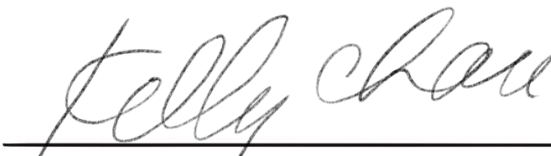
1. All medical emergency service elevator(s) shall comply with the requirements of the 2019 California Building Code section 3002.4.1a:

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, 2025



Kelly Chau, Hearing Officer

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

<u>In the Matter of Application for Permanent Variance Regarding:</u>	Permanent Variance No: See section A.1 table below
Otis Medical Emergency Elevator Car Dimensions	<u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 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-326	Long Beach Rescue Mission	1420 Pacific Ave. Long Beach, 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; and David Morris 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 22, 2025, 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, 2025


Kelly Chau, Hearing Officer

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

<u>In the Matter of Application for Permanent Variance Regarding:</u>	Permanent Variance No: See section A.1 table below
Otis Medical Emergency Elevator Car Dimensions	<u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 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-327	Lubisich Bros Investments LLC	606 N. Halifax Clovis, 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; and David Morris 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 22, 2025, 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, 2025



Kelly Chau, Hearing Officer

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

<u>In the Matter of Application for Permanent Variance Regarding:</u>	Permanent Variance No: See section A.1 table below
Otis Medical Emergency Elevator Car Dimensions	<u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 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-328	Saggio Hills Lot 14, L.P.	450 Parkland Farms Blvd. Healdsburg, 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; and David Morris 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
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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 22, 2025, 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:

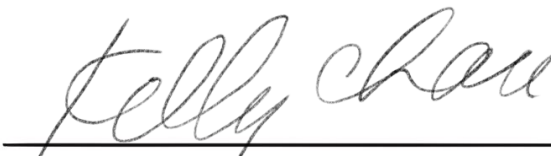
1. All medical emergency service elevator(s) shall comply with the requirements of the 2019 California Building Code section 3002.4.1a:

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, 2025



Kelly Chau, Hearing Officer

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

<u>In the Matter of Application for Permanent Variance Regarding:</u>	Permanent Variance No: See section A.1 table below
Otis Medical Emergency Elevator Car Dimensions	<u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 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-329	Sharon Heights Golf & Country Club	2900 Sand Hill Rd. Menlo Park, 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; and David Morris 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 22, 2025, 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, 2025



Kelly Chau, Hearing Officer

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

<u>In the Matter of Application for Permanent Variance Regarding:</u> Otis Gen2O and/or Gen3 Peak	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-330	California Institute of Technology	Caltech GCQPM 1200 E. California Blvd, Bldg. 36 Pasadena, CA	1

2. These proceedings are 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 22, 2025, and via teleconference, by Occupational Safety and Health Standards Board ("Board") with Hearing Officer Kelly Chau, 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.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; and David Morris appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. 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 22, 2025, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Applicable Regulations

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 (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.);
 - b. Cartop 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);
 - c. 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);
 - d. 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);
 - e. Minimum Inside Car Platform Dimensions: 3041(e)(1)(C) and 3141.7(b) (Only to the extent necessary 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 Permanent Variance No. 22-V-302 regarding medical emergency car dimensions.

2. 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”).
3. Cal/OSHA safety engineers, by way of written submissions to the record (Exhibit PD-3), and positions 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.

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 (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.);
- Cartop 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);
- 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);
- Minimum Inside Car Platform Dimensions: 3041(e)(1)(C) and 3141.7(b) (Only to the extent necessary 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. 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.
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 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).
14. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
15. 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.
16. The Applicant shall be subject to the suspension means replacement reporting condition stated in Addendum 2; that condition is incorporated herein by this reference.
17. 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.
18. 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: November 3, 2025



Kelly Chau, 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

<u>In the Matter of Application for Permanent Variance Regarding:</u> Otis Radar Sleep Mode Escalator, Otis Controller	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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A. Procedural Matters

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-331	CLPF - West Hollywood, L.P.	7100 Santa Monica Blvd. West Hollywood, CA	2

2. The safety orders at issue are set forth in the prefatory portion of the Decision and Order.
3. These proceedings are 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.
4. This hearing was held on October 22, 2025 via teleconference, by Board ("the Board") with Hearing Officer Kelly Chau, 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.
5. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; and David Morris 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:

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

7. 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 22, 2025, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings

Based on the record of this proceeding, the Board makes the following findings of fact:

1. Applicant seeks variance from certain Elevator Safety Orders, toward the stated purpose of installing new escalators that include a "sleep mode" capability that will cause the escalator to run at a reduced speed when not in use, thus resulting in conservation of electrical energy.
2. The Applicant's proposed sleep mode feature is not compliant with existing Elevator Safety Orders, which prohibits the intentional variation of an escalator's speed after start-up.
3. In order to install escalators that include a sleep mode capability, Applicant requires a permanent variance from the provisions of section 3141.11 [ASME A17.1-2004, section 6.1.4.1] regarding the variation of escalator speed.
4. Concerning variance in escalator speed, section 3141.11 [ASME A17.1-2004, section 6.1.4.1] states:

"6.1.4.1 Limits of Speed. The rated speed shall be not more than 0.5 m/s (100 ft/min), measured along the centerline of the steps in the direction of travel. The speed attained by an escalator after start-up shall not be intentionally varied."
5. As quoted above, an intent of section 3141.11 is to ensure that the speed of the escalator during normal operation is kept constant to prevent passengers from losing their balance.
6. The Applicant contends that equivalent safety is achieved through use of an Otis controller that is capable of varying the escalator drive motor speed in conjunction with dual redundant sensors strategically placed at each end of the unit to detect passenger traffic. Per the Applicant's proposed design, If one of the paired passenger detection sensors is disconnected from the control system, the control system shall, without intentional delay, generate a fault while causing the escalator to exit the Sleep Mode and remain at the normal run speed until the reconnected sensor begins to function properly. Also per this design, when passenger traffic is detected while the escalator is in "Sleep Mode", a signal would be sent to the controller to "wake up" resulting in the escalator accelerating to normal operating speed within 1.5 seconds at a rate no greater than 1 ft/sec².
7. Applicant proposes using passenger traffic sensors capable of detecting passengers at a distance greater than a walking person could travel in 2 seconds, thereby causing the escalator to be running at normal speed prior to passenger boarding.
8. Applicant proposes design features such that if a passenger detected approaching the escalator opposite the motion of the escalator steps on it while it is in "sleep mode", an alarm will sound and the escalator will exit "sleep mode" and accelerate until it reaches normal operating speed at a rate no greater than 1 ft/sec². Applicant contends this arrangement will safely discourage passengers from entering the escalator opposite the motion of the steps while it is idling at

reduced speed.

9. The Applicant proposes sensors used to detect passenger traffic being installed and arranged in a double redundant, fail-safe fashion with 2 sensors installed at each end of the escalator providing the same coverage field.
10. Applicant's proposed sensor arrangement and redundancy can be reasonably expected to provide for passenger traffic detection in the event of any single sensor failure and provide for signal comparison by the controller to detect sensor failure.
11. Applicant proposes a design in which detected failure of any one of the passenger traffic sensors, result in a disabling of "sleep mode" such that the escalator would remain at normal operating speed until all sensors have resumed normal function. In addition the proposed design would have passenger traffic sensors wired to the escalator controller in a fail-safe manner that prevents "sleep mode" activation if the sensor wiring is cut or disconnected.
12. As evidenced by written Review of Application (Exhibit PD-3), as well as statements at hearing, it is the well informed opinion of Cal/OSHA that the Applicant proposed "sleep mode" function meets the requirements of ASME A17.1-2010, section 6.1.4.1.2 regarding the varying the speed of an escalator after start-up.
13. ASME A17.1-2010, section 6.1.4.1.2 states:

Variation of the escalator speed after start-up shall be permitted provided the escalator installation conforms to all of the following:

- a. The acceleration and deceleration rates shall not exceed 0.3 m/s^2 (1.0 ft/sec^2).
- b. The rated speed is not exceeded.
- c. The minimum speed shall be not less than 0.05 m/s (10 ft/min).
- d. The speed shall not automatically vary during inspection operation.
- e. Passenger detection means shall be provided at both landings of the escalator such that
 1. detection of any approaching passenger shall cause the escalator to accelerate to or maintain the full escalator speed conforming to 6.1.4.1.2(a) through (d)
 2. detection of any approaching passenger shall occur sufficiently in advance of boarding to cause the escalator to attain full operating speed before a passenger walking at normal speed [1.35 m/s (270 ft/min)] reaches the combplate
 3. passenger detection means shall remain active at the egress landing to detect any passenger approaching against the direction of escalator travel and shall cause the escalator to accelerate to full rated speed and sound the alarm (see 6.1.6.3.1) at the approaching landing before the passenger reaches the combplate
- f. Automatic deceleration shall not occur before a period of time has elapsed since the last passenger detection that is greater than 3 times the amount of time necessary to transfer a passenger between landings.
- g. Means shall be provided to detect failure of the passenger detection means and shall cause the escalator to operate at full rated speed only"

14. The Applicant's proposed "sleep mode" function is similar to other installations for which a permanent variance has been granted (OSHSB File No. 14-V-129). In these previous variance decisions it was concluded that a variance was required from ASME A17.1-2004, section 6.1.6.4 regarding handrail speed monitoring. Conditions set forth in the previous variance decisions allow for the disabling of the handrail speed monitoring device while the escalator is operating in slow speed "sleep mode."

15. Concerning handrail speed monitoring, section 3141.11 [ASME A17.1-2004, section 6.1.6.4] states:

"6.1.6.4 Handrail Speed Monitoring Device. A handrail speed monitoring device shall be provided that will cause the activation of the alarm required by 6.1.6.3.1(b) without any intentional delay, whenever the speed of either handrail deviates from the step speed by 15% or more. The device shall also cause electric power to be removed from the driving machine motor and brake when the speed deviation of 15% or more is continuous within a 2 s to 6 s range. The device shall be of the manual reset type"

16. It is the well informed professional opinion of Cal/OSHA (see Exhibit PD-3) that that the escalator "sleep mode" function design, as proposed by the Applicant, subject to certain conditions and limitations, will provide occupational safety and health equivalent or superior to the Elevator Safety Order requirements from which variance is being sought, and recommends that the applied for permanent variance issue subject to conditions and limitations in material conformity with those incorporated into the Decision and Order below.

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 above section A.1 table specified Applicant is conditionally GRANTED permanent variance, at the respectively specified location, as to respectively specified number of conveyances, subject to all below enumerated conditions and limitations:

Permanent variance is granted, as conditionally limited below, from the following sections of ASME A17.1-2004 made applicable by CCR title 8, section 3141.11:

- 6.1.4.1, to allow intentionally varied speed; and
- 6.1.6.4, to allow the disabling of handrail speed monitoring at reduced speeds.

1. The Applicant may intentionally vary the escalator speed and install proximity sensors for traffic detection subject to the following:

- a. The rate of acceleration and deceleration shall not exceed 0.3 m/s^2 (1 ft/sec^2) when transitioning between speeds.

- b. Failure of a single proximity sensor including its associated circuitry, shall cause the escalator to revert to its normal operating speed at an acceleration of not more than 0.3 m/s² (1 ft/sec²).
- c. Automatic deceleration shall not occur before a period of time of not less than three times the time it takes a passenger to ride from one landing to the other at normal speed has elapsed.
- d. Detection of any passenger shall cause the escalator to reach full speed before a passenger, walking at 4.5 ft/sec, reaches the comb plate.
- e. The passenger detection means shall detect a person within a sufficient distance along all possible paths to the escalator that do not require climbing over barriers or escalator handrails to assure that the escalator attains full operating speed before a person walking at 4.5 ft/sec reaches the escalator comb plate. The minimum detection distance shall be calculated according to the following formula or alternatively according to Exhibit 1 (Detection Distance Sleep Mode Operation) attached hereto and incorporated herein by this reference:

$$d = (V_f - V_s) \times (V_w / a) \text{ where:}$$

d = detection distance (ft)

V_f = normal speed (ft/min) [not to exceed 100 ft/min]

V_s = slow "sleep" speed (ft/min) [not less than 10 ft/min]

V_w = passenger walking speed (4.5 ft/sec)

a = acceleration/deceleration rate (ft/sec²) [not to exceed 1 ft/sec²]

- f. Detection of any passenger approaching against the direction of escalator travel shall cause the escalator to reach full speed before a passenger, walking at 4.5 ft/sec, reaches the comb plate and shall cause the escalator alarm to sound. The sounding of the alarm may include a 3 to 5 second alarm or three 1 second alarm soundings.
- g. The minimum speed of the escalator shall not be less than 0.05 m/s (10 ft/min). The "Sleep Mode" functionality shall not affect the escalator inspection operation. The speed of the escalator shall not vary during Inspection Mode.
- h. There shall be two means of detecting passengers at each end of the escalator for redundancy and for detection of failure in the passenger detection means.
- i. The passenger sensors (detectors) at each end of the escalator must be verified by the control system for proper operation in the following manner:
 - 1. If one of the paired passenger detection sensors is disconnected from the control system, the control system shall, without intentional delay, generate a fault while causing the escalator to exit the Sleep Mode and remain at the normal run speed until the reconnected sensor begins to function properly.

2. If one of the paired sensors at either end of the escalator does not trip while the other paired sensor trips at least five times but no more than ten times, the control system shall generate a fault to indicate which sensor is faulted while causing the escalator to exist the Sleep Mode and remain at the normal run speed until the faulted sensor begins to function properly.

j. The handrail speed monitoring device required by section 6.1.6.4 may be disabled while the escalator is operating in the slow speed (Sleep Mode) condition.

2. The Applicant shall have the controller schematic diagrams available in the control space together with a written explanation of the operation of the controller.
3. An annual test shall be conducted by a Certified Competent Conveyance Mechanic (CCCM) employed by a Certified Qualified Conveyance Company (CQCC) which maintains and services the escalators, to demonstrate that the escalator is transitioning between "Normal Mode" and "Sleep Mode" and back in conformance with the terms of this variance. The instrumentation used shall be capable of allowing the CCCM to determine the acceleration and deceleration rates of the escalator.
4. The results of each annual test required by Condition No. 3 shall be submitted to the appropriate Elevator Unit District Office in tabular and graphic form (speed vs. time).
5. Whenever practicable, as determined by the Applicant and subject to the concurrence of Cal/OSHA, the variable speed system is to be installed without the installation of new bollards or other such new structures, if the bollards or other structures would impede passenger movement at the destination end of the escalator. If new bollards or other such structures of that sort are constructed in connection with the variable speed system, the Applicant will take all practicable steps to minimize the impact of same on the movement of passengers at the destination end of the escalator.
6. Any CQCC performing inspection, maintenance, servicing or testing of the escalators shall be provided a copy of the variance decision.
7. Cal/OSHA shall be notified when each subject conveyance is ready for inspection to determine compliance with the permanent variance pursuant to this Decision and Order. Each subject conveyance shall have been inspected by Cal/OSHA to determine compliance with this Decision and Order, and a Permit to Operate shall have been issued and in effect, before the conveyance is placed in service.
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 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 title 8, Chapter 3.5, Subchapter 1.

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

DATED: October 29, 2025


Kelly Chau, Hearing Officer

Exhibit 1

Detection Distance Sleep Mode Operation Acceleration Rate (ft./sec²) vs. Escalator Sleep Mode Speed (ft./min)

	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
1.00	6.76	6.39	6.01	5.64	5.26	4.88	4.51	4.13	3.76	3.38	3.01	2.63	2.25	1.88	1.50	1.13	0.75	0.38	0.00
0.95	7.12	6.72	6.33	5.93	5.54	5.14	4.75	4.35	3.96	3.56	3.16	2.77	2.37	1.98	1.58	1.19	0.79	0.40	0.00
0.90	7.52	7.10	6.68	6.26	5.85	5.43	5.01	4.59	4.18	3.76	3.34	2.92	2.51	2.09	1.67	1.25	0.84	0.42	0.00
0.85	7.96	7.52	7.07	6.63	6.19	5.75	5.30	4.86	4.42	3.98	3.54	3.09	2.65	2.21	1.77	1.33	0.88	0.44	0.00
0.80	8.45	7.98	7.52	7.05	6.58	6.11	5.64	5.17	4.70	4.23	3.76	3.29	2.82	2.35	1.88	1.41	0.94	0.47	0.00
0.75	9.02	8.52	8.02	7.52	7.01	6.51	6.01	5.51	5.01	4.51	4.01	3.51	3.01	2.51	2.00	1.50	1.00	0.50	0.00
0.70	9.66	9.13	8.59	8.05	7.52	6.98	6.44	5.90	5.37	4.83	4.29	3.76	3.22	2.68	2.15	1.61	1.07	0.54	0.00
0.65	10.41	9.83	9.25	8.67	8.09	7.52	6.94	6.36	5.78	5.20	4.62	4.05	3.47	2.89	2.31	1.73	1.16	0.58	0.00
0.60	11.27	10.65	10.02	9.39	8.77	8.14	7.52	6.89	6.26	5.64	5.01	4.38	3.76	3.13	2.51	1.88	1.25	0.63	0.00
0.55	12.30	11.61	10.93	10.25	9.56	8.88	8.20	7.52	6.83	6.15	5.47	4.78	4.10	3.42	2.73	2.05	1.37	0.68	0.00
0.50	13.53	12.78	12.02	11.27	10.52	9.77	9.02	8.27	7.52	6.76	6.01	5.26	4.51	3.76	3.01	2.25	1.50	0.75	0.00
0.45	15.03	14.20	13.36	12.53	11.69	10.86	10.02	9.19	8.35	7.52	6.68	5.85	5.01	4.18	3.34	2.51	1.67	0.84	0.00
0.40	16.91	15.97	15.03	14.09	13.15	12.21	11.27	10.33	9.39	8.45	7.52	6.58	5.64	4.70	3.76	2.82	1.88	0.94	0.00
0.35	19.32	18.25	17.18	16.10	15.03	13.96	12.88	11.81	10.74	9.66	8.59	7.52	6.44	5.37	4.29	3.22	2.15	1.07	0.00
0.30	22.55	21.29	20.04	18.79	17.54	16.28	15.03	13.78	12.53	11.27	10.02	8.77	7.52	6.26	5.01	3.76	2.51	1.25	0.00
0.25	27.05	25.55	24.05	22.55	21.04	19.54	18.04	16.53	15.03	13.53	12.02	10.52	9.02	7.52	6.01	4.51	3.01	1.50	0.00
0.20	33.82	31.94	30.06	28.18	26.30	24.42	22.55	20.67	18.79	16.91	15.03	13.15	11.27	9.39	7.52	5.64	3.76	1.88	0.00
0.15	45.09	42.59	40.08	37.58	35.07	32.57	30.06	27.56	25.05	22.55	20.04	17.54	15.03	12.53	10.02	7.52	5.01	2.51	0.00
0.10	67.64	63.88	60.12	56.36	52.61	48.85	45.09	41.33	37.58	33.82	30.06	26.30	22.55	18.79	15.03	11.27	7.52	3.76	0.00
0.05	135.27	127.76	120.24	112.73	105.21	97.70	90.18	82.67	75.15	67.64	60.12	52.61	45.09	37.58	30.06	22.55	15.03	7.52	0.00

$$d = (V_f - V_s) \times V_w / a$$

d = Detection distance (ft.)

V_f = Escalator Rated Speed (Escalators with rated speeds of 100 ft./min.)

V_s = Slow Speed["Sleep mode" Speed] (ft./min.)

V_w = Passenger Walking Speed of 4.5 ft./sec.

a = Acceleration/Deceleration Rate (ft./sec.²)

Note: 1 ft./min. = 0.0167 ft./sec.

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

<u>In the Matter of Application for Permanent Variance Regarding:</u> Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-332	San Diego State University	SDSU Flex Building 5445 55th St. San Diego, 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; and David Morris 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
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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 22, 2025, 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 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 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 29, 2025



Kelly Chau, 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

<u>In the Matter of Application for Permanent Variance Regarding:</u> Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-333	California Institute of Technology	Caltech GCQPM 1200 East California Blvd., Bldg. 36 Pasadena, 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; and David Morris 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 22, 2025, 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 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 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 29, 2025



Kelly Chau, 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

<u>In the Matter of Application for Permanent Variance Regarding:</u> Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-334	3451 Motor Ave., LLC	3451 S. Motor 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; and David Morris 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 22, 2025, 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 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 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 29, 2025



Kelly Chau, 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

<u>In the Matter of Application for Permanent Variance Regarding:</u> Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-335	3592 Eastham Owner, LLC	Eastham Building A 3620 Eastham Dr. Culver City, 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; and David Morris 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
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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 22, 2025, 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 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 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 29, 2025



Kelly Chau, 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

<u>In the Matter of Application for Permanent Variance Regarding:</u> Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-336	3592 Eastham Owner, LLC	Eastham Building B 3592 Eastham Dr. Culver City, 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; and David Morris 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
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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 22, 2025, 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 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 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 29, 2025



Kelly Chau, 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

<u>In the Matter of Application for Permanent Variance Regarding:</u> Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-337	4670 Beverly LLC	4670 Beverly Blvd. 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; and David Morris 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 22, 2025, 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 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 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 29, 2025



Kelly Chau, 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

<u>In the Matter of Application for Permanent Variance Regarding:</u> Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-338	CRP The Pardes 2 LP	8335 Tarak Dr., Bldg. 3 Elk Grove, 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; and David Morris 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 22, 2025, 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 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 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 29, 2025



Kelly Chau, 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

<u>In the Matter of Application for Permanent Variance Regarding:</u> KONE Sleep Mode Escalator	Permanent Variance No: See section A.1 table below REVIEW DRAFT 1 <u>PROPOSED DECISION</u> Hearing Date: December 3, 2025 Location: Zoom
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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-339	CCMH San Diego LLC	333 W. Harbor Dr. San Diego, CA 92101	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 December 3, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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; and David Morris 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 December 3, 2025, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. Based upon the record of this proceeding, the Board finds the following: Applicant proposes to perform alterations to 4 existing escalators that include a "sleep mode" capability that will cause the escalator to run at a reduced speed when not in use to conserve energy. This arrangement does not comply with the Elevator Safety Orders that prohibit the intentional variation of an escalator's speed after start-up, and thus variance is requested from California Code of Regulations, For this reason, the Applicant requires a permanent variance from the provisions of California Code of Regulations, Title 8, Elevator Safety Orders, Group IV, Section 3141.2 [ASME A17.1-2004 sections 8.7.6.1.1 (8.7.1.1) and 8.7.6.1.6] with the relevant code sections being ASME A17.1-2004, sections 6.1.4.1 and 6.1.6.4, regarding the variation of escalator speed and handrail speed monitoring.
2. ASME A17.1-2004, section 8.7.8.1.6 states:
 - 8.7.8.1.6 Handrails. Any alteration to the handrails or handrail system shall require conformance with 6.1.3.2.2, 6.1.3.4.1 through 6.1.3.4.4, 6.1.3.4.6, 6.1.6.3.12, and 6.1.6.4.
3. The Applicant's proposed "sleep mode" function is similar to other installations for which a permanent variance has been granted (Permanent Variance No. 25-V-339). In this previous variance decision it was concluded by the Board, that a variance also be granted from section 3141.11 [ASME A17.1-2004, section 6.1.6.4] regarding handrail speed monitoring. ASME A17.1-2004, section 6.1.4.1, states:
 - 6.1.4.1 Limits of Speed. The rated speed shall be not more than 0.5 m/s (100 ft/min), measured along the centerline of the steps in the direction of travel. The speed attained by an escalator after start-up shall not be intentionally varied.
 - The purpose of this regulation is to ensure that the speed of the escalator during normal operation is kept constant to prevent passengers from losing their balance.
4. The Applicant contends that equivalent safety is achieved through the use of a controller that is capable of varying the escalator drive motor speed in conjunction with dual redundant sensors strategically placed at each end of the unit to detect passenger traffic. When the sensors indicate a lack of traffic approaching the escalator, for a specified amount of time not less than three times the amount of time to transfer a passenger between landings, the control system will initiate the "sleep mode" function, decelerating the escalator to a "crawling speed", no less than 0.05 m/s (10 ft./min). If passenger traffic is detected while the escalator is in "Sleep Mode," a signal will be sent to the controller to "wake up" resulting in the escalator accelerating to normal operating speed within 1.5 seconds at a rate no greater than 1 ft/sec².
5. Per Applicant, the sensors used to detect passenger traffic would provide coverage able to detect passengers at a distance greater than a walking person could travel in 2 seconds, which will ensure the escalator is running at normal speed prior to passenger boarding.
6. Applicant proposes that if passenger traffic is detected approaching the escalator opposite the motion of the escalator steps while in "sleep mode", an alarm will sound and the escalator will exit "sleep mode" and accelerate until it reaches normal operating speed at a rate no greater

than 1 ft/sec². This arrangement is intended to discourage passengers from entering the escalator opposite the motion of the steps while at reduced speed.

7. As proposed, the sensors used to detect passenger traffic are to be installed and arranged in a double redundant, fail-safe fashion with two sensors installed at each end of the escalator providing the same coverage field. This arrangement is intended to allow for passenger traffic detection in the case of any single sensor failure and provide for signal comparison by the controller to detect sensor failure. In the event of a detected failure of any one of the passenger traffic sensors, “sleep mode” would be disabled and the escalator would remain at normal operating speed until all sensors have resumed normal function. In addition, the passenger traffic sensors are to be wired to the escalator controller in a fail-safe manner that prevents “sleep mode” activation if the wiring is cut or disconnected.
8. ASME A17.1-2004, section 8.7.6.1.1 states:
 - 8.7.6.1.1. General Requirements. Any alteration to an escalator shall comply with 6.1.6.1, 6.1.6.1.1, 6.1.6.2.1, 6.1.6.3.1, 6.1.6.3.5, 6.1.6.7, 8.7.1.1, and 8.7.1.2.
9. Cal/OSHA has applied ASME A17.1-2004 section 8.7.6.1.1 (reference to section 8.7.1.1) to the prohibition of intentionally varying the travel speed under section 6.1.4.1.
10. Cal/OHSA notes in its Review of Application (Exhibit PD-4) that the Applicant proposed “sleep mode” function meets the requirements of ASME A17.1-2010, section 6.1.4.1.2 regarding the varying the speed of an escalator after start-up. For this reason among others identified within the its Review of Application, Cal/OSHA advises that equivalent or superior safety will be provided by grant of permanent variance in this matter, as conditionally limited per the below Decision and Order.
11. ASME A17.1-2010, section 6.1.4.1.2, states:
 - Variation of the escalator speed after start-up shall be permitted provided the escalator installation conforms to all of the following:
 - a. The acceleration and deceleration rates shall not exceed 0.3 m/s² (1.0 ft/sec²).
 - b. The rated speed is not exceeded.
 - c. The minimum speed shall be not less than 0.05 m/s (10 ft/min).
 - d. The speed shall not automatically vary during inspection operation.
 - e. Passenger detection means shall be provided at both landings of the escalator such that
 1. detection of any approaching passenger shall cause the escalator to accelerate to or maintain the full escalator speed conforming to 6.1.4.1.2(a) through (d)
 2. detection of any approaching passenger shall occur sufficiently in advance of boarding to cause the escalator to attain full operating speed before a passenger walking at normal speed [1.35 m/s (270 ft/min)] reaches the combplate
 3. passenger detection means shall remain active at the egress landing to detect

any passenger approaching against the direction of escalator travel and shall cause the escalator to accelerate to full rated speed and sound the alarm (see 6.1.6.3.1) at the approaching landing before the passenger reaches the combplate

- f. Automatic deceleration shall not occur before a period of time has elapsed since the last passenger detection that is greater than 3 times the amount of time necessary to transfer a passenger between landings.
- g. Means shall be provided to detect failure of the passenger detection means and shall cause the escalator to operate at full rated speed only.”

12. Cal/OSHA states correctly in its Review of Application, that Applicant’s proposed “sleep mode” function is materially similar to other installations for which a permanent variance has been granted (Permanent Variance No. 14-V-129). In these previous variance decisions it was concluded that a variance was required from ASME A17.1 2004, section 6.1.6.4 regarding handrail speed monitoring, and the concluding conditional grant of variance provided for the disabling of the handrail-speed monitoring device while the escalator is operating in slow speed “sleep mode.”

13. ASME A17.1-2004, section 6.1.6.4, states:

- Handrail Speed Monitoring Device. A handrail speed monitoring device shall be provided that will cause the activation of the alarm required by 6.1.6.3.1(b) without any intentional delay, whenever the speed of either handrail deviates from the step speed by 15% or more. The device shall also cause electric power to be removed from the driving-machine motor and brake when the speed deviation of 15% or more is continuous within a 2 s to 6 s range. The device shall be of the manual-reset type.
- The intent of this regulation is to prevent the destabilization of passengers by maintaining the potential relationship of the moving elements with which passengers interaction while riding.

14. The Applicant intends to disable the handrail speed monitoring during sleep mode operation.

15. Cal/OSHA advises that the proposed “sleep mode” system incorporating the proposed hand rail speed control specifications, subject to all conditions and limitations of the below Decision and Order will provide for safety equivalence.

16. The proposed “sleep mode” system functions and devices are materially comparable to other installations for which permanent variance previously has been granted by the Board (e.g. Permanent Variance No. 13-V-153, 14-V-129, 15-V-236, 16-V-069), absent, to Cal/OSHA’s reported knowledge, adverse effect upon passenger or workplace safety or health.

17. Cal/OSHA recommends that conditionally limited grant of permanent variance in this matter, per the below Decision and Order, will provide for passenger safety and occupational safety and health equivalent or superior to that would otherwise prevail per the subject Elevator Safety Order requirements.

D. 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.

E. Decision and Order

The application is conditionally GRANTED as specified below, and to the limited extent, as of the date the Board adopts this Proposed Decision, the respective section A table specified quantity of Schindler escalators, at the specified location, shall have permanent variance from Applicant requires a permanent variance from the provisions of section 3141.2 [ASME A17.1-2004 sections 8.7.6.1.1 (8.7.1.1) and 8.7.6.1.6] with the relevant code sections being ASME A17.1-2004, sections 6.1.4.1 and 6.1.6.4, regarding the variation of escalator speed and handrail speed monitoring, subject to each and all of the following requirements and limitations:

1. The Applicant may intentionally vary the escalator speed and install proximity sensors for traffic detection subject to the following:
 - a. The rate of acceleration and deceleration shall not exceed 0.3 m/s^2 (1 ft/sec^2) when transitioning between speeds.
 - b. Failure of a single proximity sensor including its associated circuitry, shall cause the escalator to revert to its normal operating speed at an acceleration of not more than 0.3 m/s^2 (1 ft/sec^2).
 - c. Automatic deceleration shall not occur before a period of time of not less than three times the time it takes a passenger to ride from one landing to the other at normal speed has elapsed.
 - d. Detection of any passenger shall cause the escalator to reach full speed before a passenger, walking at 4.5 ft/sec , reaches the comb plate.
 - e. The passenger detection means shall detect a person within a sufficient distance along all possible paths to the escalator that do not require climbing over barriers or escalator handrails to assure that the escalator attains full operating speed before a person walking at 4.5 ft/sec reaches the escalator comb plate. The minimum detection distance shall be calculated according to the following formula or alternatively according to Appendix 1 (Detection Distance Sleep Mode Operation) attached hereto and incorporated herein by this reference:
 - $d = (V_f - V_s) \times (V_w / a)$ where
 - d = detection distance (ft)
 - V_f = normal speed (ft/min) [not to exceed 100 ft/min]
 - V_s = slow "sleep" speed (ft/min) [not less than 10 ft/min]
 - V_w = passenger walking speed (4.5 ft/sec)

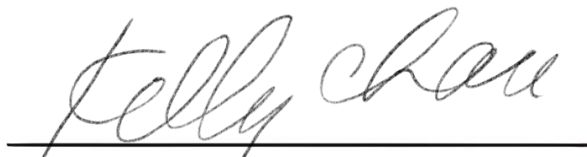
- $a = \text{acceleration/deceleration rate (ft/sec}^2\text{)[not to exceed 1 ft/sec}^2\text{]}$

- f. Detection of any passenger approaching against the direction of escalator travel shall cause the escalator to reach full speed before a passenger, walking at 4.5 ft/sec, reaches the comb plate and shall cause the escalator alarm to sound. The sounding of the alarm may include a 3 to 5 second alarm or three 1 second alarm soundings.
 - g. The minimum speed of the escalator shall not be less than 0.05 m/s (10 ft/min). The "sleep mode" functionality shall not affect the escalator inspection operation. The speed of the escalator shall not vary during Inspection Mode.
 - h. There shall be two means of detecting passengers at each end of the escalator for redundancy and for detection of failure in the passenger detection means.
 - i. The passenger sensors (detectors) at each end of the escalator must be verified by the control system for proper operation in the following manner:
 1. If any of the passenger detection sensors remains tripped for at least 5 minutes but no more than 10 minutes, then the control system shall generate a fault to indicate which sensor is faulted while causing the escalator to exit the Sleep Mode and remain at the normal run speed until the faulted sensor begins to function properly.
 2. If one of the paired sensors at either end of the escalator does not trip while the other paired sensor trips at least five times but no more than ten times, the control system shall generate a fault to indicate which sensor is faulted while causing the escalator to exit the Sleep Mode and remain at the normal run speed until the faulted sensor begins to function properly.
 - j. The handrail speed monitoring device required by section 6.1.6.4 may be disabled while the escalator is operating in the slow speed (Sleep Mode) condition.
2. The Applicant shall have the controller schematic diagrams available in the control space together with a written explanation of the operation of the controller.
 3. An annual test shall be conducted by a Certified Competent Conveyance Mechanic (CCCM) employed by a Certified Qualified Conveyance Company (CQCC) which maintains and services the escalators, to demonstrate that the escalator is transitioning between "Normal Mode" and "Sleep Mode" and back in conformance with the terms of this variance. The instrumentation used shall be capable of allowing the CCCM to determine the acceleration and deceleration rates of the escalator.
 4. The results of each annual test required by Condition No. 3 shall be submitted to the appropriate Elevator Unit District Office in tabular and graphic form (speed vs. time).
 5. Whenever practicable, as determined by the Applicant and subject to the concurrence of Cal/OSHA, the variable speed system is to be installed without the installation of new bollards or other such new structures, if the bollards or other structures would impede passenger movement at the destination end of the escalator. If new bollards or other such structures of that sort are constructed in connection with the variable speed system, the Applicant will take all practicable steps to minimize the impact of same on the movement of passengers at the destination end of the escalator.

6. Any Certified Qualified Conveyance Company (CQCC; elevator contractor) performing inspection, maintenance, servicing or testing of the escalators shall be provided a copy of the variance decision.
7. Cal/OSHA shall be notified when the escalator is ready for inspection, and the escalator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the escalator may be placed in service.
8. 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.
9. 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 procedural accordance with section 411, et. seq.

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

DATED: November 6, 2025



Kelly Chau, Hearing Officer

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

<u>In the Matter of Application for Permanent Variance Regarding:</u> KONE Monospace 500 Elevators (Group IV)	Permanent Variance No: See section A.1 table below REVIEW DRAFT 1 <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-340	City of San Pablo	1050 Gateway Ave. San Pablo, 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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 Elevators, appeared on behalf of each Applicant; and David Morris 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 22, 2025, 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 provide 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:

$$W = \frac{(S \times N)}{f} \quad \text{where:}$$

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 WITHDRAWN, 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: November 6, 2025



Kelly Chau, Hearing Officer

APPENDIX 1

File Number	Elevator ID	Minimum Suspension Ropes Per Elevator	Maximum Suspended Weight Per Elevator	Maximum Speed	Rated Capacity
25-V-340	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

<u>In the Matter of Application for Permanent Variance Regarding:</u> KONE Monospace 500 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-341	Broadstone Crossing Phase II, LLC	1655 Wellspring Dr. Folsom, CA 95630	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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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 Elevators appeared on behalf of each Applicant; and David Morris 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 22, 2025, 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 provide 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:

$$W = \frac{(S \times N)}{f} \quad \text{where:}$$

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 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.

14. 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.
15. 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.
16. 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 29, 2025



Kelly Chau, Hearing Officer

APPENDIX 1

File Number	Elevator ID	Minimum Suspension Ropes Per Elevator	Maximum Suspended Weight Per Elevator	Maximum Speed	Rated Capacity
25-V-341	P1	7	12247	150	3500
25-V-341	P2	7	12247	150	3500
25-V-341	P3	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

<u>In the Matter of Application for Permanent Variance Regarding:</u> Schindler Model 6400 Elevators (Group IV, STM Alteration)	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-342	Main Promenade Inc.	200 Main St. Huntington 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, Peter Cuellar with Schindler Elevator Corporation appeared on behalf of each Applicant, and David Morris 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 22, 2025, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. As each pertains to the non-circular elastomeric coated suspension members characteristic of the proposed Schindler Traction Media (STM) suspension means, 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;

2. ASME A17.1-2004, section 2.20.1 states in relevant part:

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.

3. ASME A17.1-2004, section 2.20.2.1 states in relevant part:

2.20.2.1 On Crosshead Data Plate. 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.)

4. ASME A17.1-2004, section 2.20.2.2 state in relevant part:

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 non preformed or preformed

5. ASME A17.1-2004, section 2.20.3 states:

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

6. ASME A17.1-2004, section 2.20.4 states:

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 not be less than 0.56 mm (0.024 in.) in diameter.

7. ASME A17.1-2004, section 2.20.9.3.4 states:

2.20.9.3.4. 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 E8, 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.).

8. ASME A17.1-2004, section 2.20.9.5.4 states:

2.20.9.5.4. 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.

9. A central 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 elastomeric coated steel belt suspension due to its dissimilar construction and fastening to that of wire rope.
10. Applicant proposes to utilize an engineered belt-type suspension product that arranges steel tension members horizontally in an elastomeric coating using specifically designed fastenings for attachment. This suspension product is provided by Schindler Elevator Corporation and is designated as "Suspension Traction Media" (STM). This suspension product has been the subject of previous permanent variance proceedings in which the Board did find equivalent safety would prevail upon grant of permanent variance subject to conditions and limitations in substantial conformity with those presently set out in the below Decision and Order (e.g. OSHSB File Nos. 15-V-349; 18-V-143).
11. Applicant asserts that the use of the STM product, along with the following conditions, will provide equivalent safety:
 - The STM's will be maintained in accordance with the Schindler 6400 Maintenance Control Program (MCP), Chapter 4, Special Procedures – Suspension Traction Media.
 - A "traction loss monitoring" system complying with ASME A17.1-2016 will be provided.
 - A means to detect a broken STM will be provided that will cause the elevator to automatically stop at the next available landing on detection of a parted STM.
 - A means to count the number of STM bending cycles to estimate through correlation the remaining residual strength of the STMs.
 - A means to monitor the actual residual strength of the STMs in accordance with the Division issued Circular Letter E-10-04, will be provided.
 - Visual inspections of STM conducted semiannually, per MCP (Application attachment 7E & 7F).
12. Attached to each respective Application are documentation of laboratory testing and third party certification attesting to the suitability of the STM product for use as an elevator suspension means. The Application also contains the statement: "The STM meets or exceeds 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." ASME A17.6 is a model standard for elevator suspension means, including non-circular elastomeric coated steel belts such as the Schindler STM product. However, it does bear noting that it is not a standard referenced or incorporated into the current Elevator Safety Orders.
13. Per 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 (see above B.4), 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.5—D.51 findings, and therein entered record upon which it was based.

14. It is the opinion of the Cal/OSHA Elevator Unit staff that grant to Applicant of permanent variance, subject to conditions and limitations in full accord with those specified per the below Decision and Order, will provide for safety equivalent or superior to that of the Elevator Safety Order requirements from which variance is being sought.

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 above section A.1 table specified Applicant, with respect to the also specified number of conveyance, and variance location, 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—to the limited extent variance is necessary to provide for below conditionally specified use of noncircular elastomeric-coated steel suspension members, concomitant components, and configurations, permanent variance is granted from the following section 3141 incorporated sections and subsections of ASME A17.1-2004:

- 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 non-preformed;
- 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;

Further Conditions and Limitations of Permanent Variance:

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

1.1.1 Additionally, the subject 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.

1.2 The Applicant shall not utilize the elevator unless the manufacturer has provided 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 the Division upon request.

1.3 STM member mandatory replacement criteria shall include:

1.3.1 Any exposed wire, strand or cord;

1.3.2 Any wire, strand or cord breaks through the elastomeric coating;

1.3.3 Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric coated steel suspension member;

1.3.4 Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends.

1.4 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.

1.5 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.

1.6 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.

1.7 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).

1.8 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 (Division 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.

1.9 The 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 Division Circular Letter E-10-04, a copy of which is attached hereto as Addendum 1, and incorporated herein by reference.

1.10 The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.

1.11 A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.

1.12 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.

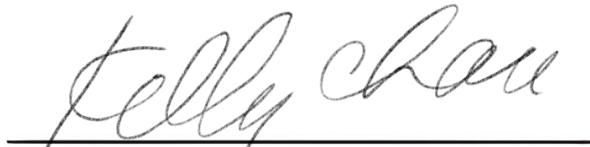
1.13 The Applicant shall be subject to the requirements per hereto attached, and inhere incorporated, Addendum 2, "Suspension Means Replacement Reporting Condition."

1.14 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. 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 6400 elevator system in accordance with written procedures and criteria, including as required per above Conditions 1.2, and 1.3.
3. 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.
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. 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 accordance with the Board's procedural rules.

adoption.

DATED: October 28, 2025



Kelly Chau, 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

<u>In the Matter of Application for Permanent Variance Regarding:</u> Schindler Model 3300 Elevators, w/variant Gov. Ropes and Sheaves (Group IV)	Permanent Variance No: See section A.1 table below <u>PROPOSED DECISION</u> Hearing Date: October 22, 2025 Location: Zoom
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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-343	333 Palm Development LLC, a Delaware Limited Liability Company	333 N. Palm Dr. Beverly 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 22, 2025 via videoconference by the Board with Hearing Officer Kelly Chau, 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, Peter Cuellar, with Schindler, appeared on behalf of each Applicant; and David Morris 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 22, 2025, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. 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]

<u>Rated Speed m/s (ft./min)</u>	<u>Number of Strands</u>	<u>Multiplier</u>
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.

D. 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.

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 CCM.
 - 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.

**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 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: November 3, 2025



Kelly Chau, 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

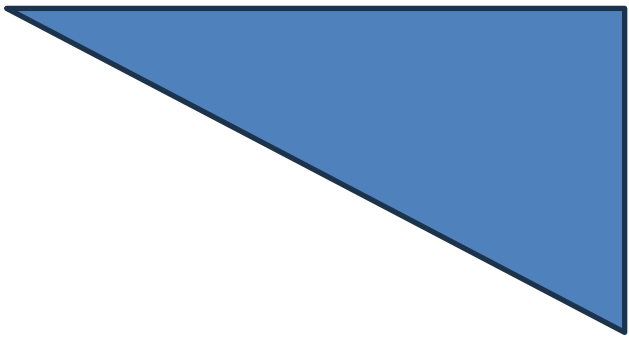
EXHIBIT 2

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 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.



Occupational Safety and Health Standards Board

Business Meeting Legislative Update

Prepared by the Department of Industrial Relations
Available on the DIR web page: [Standards Board \(OSHSB\) 2025 Meeting Schedule](#)

Legislative Update
Prepared November 4, 2025, for the November 20, 2025
Meeting of the Occupational Safety and Health Standards Board

AB-589 Firefighters: personal protective equipment. (2025-2026) – NO UPDATE

(Gallagher)

Date	Action
04/22/25	Re-referred to Com. on L. & E.
04/21/25	From committee chair, with author's amendments: Amend, and re-refer to Com. on L. & E. Read second time and amended.
04/21/25	In committee: Set, first hearing. Hearing canceled at the request of author.
02/24/25	Referred to Com. on L. & E.
02/13/25	From printer. May be heard in committee March 15.
02/12/25	Read first time. To print.

Summary:

AB 589, as amended, Gallagher. Firefighters: personal protective equipment.

The California Occupational Safety and Health Act of 1973 provides the Division of Occupational Safety and Health within the Department of Industrial Relations with the power, jurisdiction, and supervision over all employment and places of employment necessary to enforce and administer all occupational health and safety laws and to protect employees. The act grants to the Occupational Safety and Health Standards Board, an independent entity within the department, exclusive authority to adopt occupational safety and health standards within the state.

Beginning July 1, 2018, and every 5 years thereafter, the act requires the board, in consultation with the department, to complete a comprehensive review of all revisions to National Fire Protection Association standards pertaining to certain personal protective equipment and requires the board to consider modifying existing safety orders and to render a decision regarding the adoption of necessary changes to safety orders, or other applicable standards and regulations, no later than July 1 of the subsequent year, if the review finds that the revisions to applicable National Fire Protection Association standards provide a greater degree of personal protection than the safety orders.

This bill would prohibit the board from adopting a safety order or regulation that requires the personal protective equipment described above and used exclusively by certain fire districts to be replaced more frequently than once every 15 years unless the board finds the personal protective equipment is unsafe due to wear and tear, poses an immediate safety hazard, or contains perfluoroalkyl and polyfluoroalkyl substances or any other currently known hazardous material.

Board staff is monitoring for potential impacts on Board operations.

Legislative Update
Prepared November 4, 2025, for the November 20, 2025
Meeting of the Occupational Safety and Health Standards Board

AB-696 Lithium-ion vehicle batteries: emergencies: advisory group. (2025-2026) – UPDATE

(Ransom)
(Principal Coauthor: Lackey)

Date	Action
10/11/25	Consideration of Governor's veto pending.
10/11/25	Vetoed by Governor.
09/09/25	Enrolled and presented to the Governor at 3 p.m.
09/03/25	Senate amendments concurred in. To Engrossing and Enrolling. (Ayes 79. Noes 0. Page 2860.).
09/02/25	In Assembly. Concurrence in Senate amendments pending.
09/02/25	Read third time. Passed. Ordered to the Assembly. (Ayes 39. Noes 0.).
08/21/25	Read second time. Ordered to third reading.
08/20/25	Read third time and amended. Ordered to second reading.
08/20/25	Ordered to third reading.
08/20/25	From Consent Calendar.
08/20/25	Read second time. Ordered to Consent Calendar.
08/19/25	From committee: Be ordered to second reading file pursuant to Senate Rule 28.8 and ordered to Consent Calendar.
07/16/25	From committee: Do pass and re-refer to Com. on APPR. with recommendation: To Consent Calendar. (Ayes 8. Noes 0.) (July 16). Re-referred to Com. on APPR.
07/08/25	From committee: Do pass and re-refer to Com. on E.Q. with recommendation: To Consent Calendar. (Ayes 15. Noes 0.) (July 8). Re-referred to Com. on E.Q.
06/30/25	From committee chair, with author's amendments: Amend, and re-refer to committee. Read second time, amended, and re-referred to Com. on G.O.
06/18/25	Referred to Coms. on G.O. and E.Q.
06/05/25	In Senate. Read first. To Com. on RLS for assignment.

Legislative Update
Prepared November 4, 2025, for the November 20, 2025
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Date	Action
06/04/25	Read third time. Passed. Ordered to the Senate. (Ayes 79. Noes 0.)
05/27/25	Read second time. Ordered to third reading.
05/23/25	Read second time and amended. Ordered returned to second reading.
05/23/25	From committee: Amend and do pass as amended. (Ayes 11. Noes 0.) (May 23).
05/23/23	Assembly Rule 63 suspended. (Ayes 51. Noes 16.)
04/09/25	In committee: Set, first hearing. Referred to APPR. suspense file.
03/26/25	From committee: Do pass and re-refer to Com. on APPR. with recommendation: To Consent Calendar. (Ayes 7. Noes 0.) (March 25). Re-referred to Com. on APPR.
03/12/25	Re-referred to Com. on E.S. & T.M.
03/11/25	From committee chair, with author's amendments: Amend, and re-refer to Com. on E.S. & T.M. Read second time and amended.
03/03/25	Referred to Com. on E.S.& T.M. and NAT. RES.
02/15/25	From printer. May be heard in committee March 17.
02/14/25	Read first time. To print.

Summary:

AB 696, Ransom. Lithium-ion vehicle batteries: emergencies: advisory group.

Existing law requires the Secretary for Environmental Protection, until January 1, 2027, to convene the Lithium-Ion Car Battery Recycling Advisory Group to review, and advise the Legislature on, policies pertaining to the recovery and recycling of lithium-ion batteries sold with motor vehicles in the state, and requires the secretary to appoint members to the committee from specified departments, vocations, and organizations.

Existing law, the California Emergency Services Act, establishes the Office of Emergency Services within the Governor's office, under the supervision of the Director of Emergency Services, and makes the office responsible for the state's emergency and disaster response services for natural, technological, or manmade disasters and emergencies.

This bill would require the Office of the State Fire Marshal on or before December 31, 2026, to

Legislative Update
Prepared November 4, 2025, for the November 20, 2025
Meeting of the Occupational Safety and Health Standards Board

convene the Lithium-Ion Car Battery Advisory Group to review, and advise the Legislature on, policies pertaining to the safety and management of lithium-ion vehicle batteries involved in an emergency situation, as provided. The bill would require the Office of the State Fire Marshal to appoint members to the advisory group from specified departments, agencies, vocations, and organizations. The bill would require the advisory group to meet at least quarterly until July 1, 2028, and to consult with universities and research institutions that have conducted research in the area of lithium-ion batteries, with manufacturers of electric and hybrid vehicles, and both state and local first responders. The bill would require the group to develop standards, on or before July 1, 2028, based on local, state, and national guidance and research, aimed at ensuring that best standards and practices are created that allow first responders to respond to lithium-ion vehicle battery emergencies in a safe and efficient manner. The bill would repeal these provisions on January 1, 2029.

Board staff is monitoring for potential impacts on Board operations.

**AB-841 State Fire Marshal: personal protective equipment: battery fires. (2025-2026) –
UPDATE**

(Patel) (Coauthor: Ramos)

Date	Action
10/06/25	Chaptered by Secretary of State - Chapter 382, Statutes of 2025.
10/06/25	Approved by the Governor.
09/24/25	Enrolled and presented to the Governor at 3 p.m.
09/12/25	Senate amendments concurred in. To Engrossing and Enrolling. (Ayes 80. Noes 0.).
09/12/25	In Assembly. Concurrence in Senate amendments pending.
09/11/25	Read third time. Passed. Ordered to the Assembly. (Ayes 40. Noes 0.).
09/09/25	Ordered to special consent calendar.
09/02/25	Read second time. Ordered to third reading.
08/29/25	Read second time and amended. Ordered returned to second reading
08/29/25	From committee: Amend, and do pass as amended. (Ayes 7. Noes 0.) (August 29).
08/18/25	In committee: Referred to suspense file.

Legislative Update
Prepared November 4, 2025, for the November 20, 2025
Meeting of the Occupational Safety and Health Standards Board

Date	Action
07/08/25	From committee: Do pass and re-refer to Com. on APPR. with recommendation: To Consent Calendar. (Ayes 15. Noes 0.) (July 8). Re-referred to Com. on APPR.
07/01/25	From committee chair, with author's amendments: Amend, and re-refer to committee. Read second time, amended, and re-referred to Com. on G.O.
06/11/25	Referred to Com. on G.O.
06/03/25	In Senate. Read first time. To Com. on RLS. for assignment.
06/02/25	Read third time. Passed. Ordered to the Senate. (Ayes 79. Noes 0.)
05/27/25	Read second time. Ordered to third reading.
05/23/25	From committee: Do pass. (Ayes 14. Noes 0.) (May 23).
05/07/25	In committee: Set, first hearing. Referred to APPR. suspense file.
04/24/25	From committee: Do pass and re-refer to Com. on APPR. with recommendation: To Consent Calendar. (Ayes 7. Noes 0.) (April 23). Re-referred to Com. on APPR.
04/22/25	Re-referred to Com. on L. & E.
04/21/25	From committee chair, with author's amendments: Amend, and re-refer to Com. on L. & E. Read second time and amended.
04/08/25	From committee: Do pass and re-refer to Com. on L. & E. (Ayes 7. Noes 0.) (April 7). Re-referred to Com. on L. & E.
03/25/25	Re-referred to Com. on E.M.
03/24/25	From committee chair, with author's amendments: Amend, and re-refer to Com. on E.M. Read second time and amended.
02/20/25	From printer. May be heard in committee March 22.
02/19/25	Read first time. To print.

Summary:

AB 841, Patel. State Fire Marshal: personal protective equipment: battery fires.

Existing law authorizes the State Fire Marshal to make changes as may be necessary to standardize all existing fire protective equipment throughout the state.

This bill would require, until January 1, 2031, the State Fire Marshal, in consultation with the

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Division of Occupational Safety and Health, to develop a working group with specified membership to make recommendations regarding personal protective equipment used in responding to lithium-ion battery fires. The bill would require, at a minimum, the working group to review, and for the purpose of making the recommendations to consider, the latest personal protective equipment to limit exposure to lithium and other heavy metals, technology to clean personal protective equipment, whether different types of personal protective equipment should be used for different types of lithium-ion battery fires, and current decontamination practices at the fire scene, as specified. The bill would require the recommendations to be submitted to the Legislature on or before September 1, 2026.

Board staff is monitoring for potential impacts on Board operations.

AB-1181 Firefighters: personal protective equipment. (2025-2026) – UPDATE

(Haney and Harabedian)
(Coauthor: Papan)

Date	Action
10/06/25	Chaptered by Secretary of State - Chapter 392, Statutes of 2025.
10/06/25	Approved by the Governor.
09/24/25	Enrolled and presented to the Governor at 3 p.m.
09/12/25	Senate amendments concurred in. To Engrossing and Enrolling. (Ayes 79. Noes 0.).
09/12/25	In Assembly. Concurrence in Senate amendments pending.
09/11/25	Read third time. Passed. Ordered to the Assembly. (Ayes 40. Noes 0.).
09/09/25	Ordered to special consent calendar.
09/04/25	Read second time. Ordered to third reading.
09/03/25	Read third time and amended. Ordered to second reading.
09/02/25	Read second time. Ordered to third reading.
08/29/25	Read second time and amended. Ordered returned to second reading.
08/29/25	From committee: Amend, and do pass as amended. (Ayes 7. Noes 0.) (August 29).
06/30/25	In committee: Referred to APPR. suspense file.

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Date	Action
06/18/25	From committee: Do pass and re-refer to Com. on APPR. with recommendation: To Consent Calendar. (Ayes 5. Noes 0.) (June 18). Re-referred to Com. on APPR.
06/12/25	From committee chair, with author's amendments: Amend, and re-refer to committee. Read second time, amended, and re-referred to Com. on L., P.E. & R.
06/11/25	Referred to Com. on L., P.E. & R.
06/03/25	In Senate. Read first time. To Com. on RLS. for assignment.
06/02/25	Read third time. Passed. Ordered to the Senate. (Ayes 78. Noes 0.)
05/27/25	Read second time. Ordered to third reading.
05/23/25	Read second time and amended. Ordered returned to second reading.
05/23/25	From committee: Amend and do pass as amended. (Ayes 11. Noes 0.) (May 23).
05/23/25	Assembly Rule 63 suspended. (Ayes 51. Noes 16.)
05/07/25	In committee: Set, first hearing. Referred to APPR. suspense file.
04/03/25	From committee: Do pass and re-refer to Com. on APPR. (Ayes 7. Noes 0.) (April 2). Re-referred to Com. on APPR.
03/17/25	Re-referred to Com. on L. & E.
03/13/25	From committee chair, with author's amendments: Amend, and re-refer to Com. on L. & E. Read second time and amended.
03/13/25	Referred to Com. on L. & E.
02/24/25	Read first time.
02/22/25	From printer. May be heard in committee March 24.
02/21/25	Introduced. To print.

Summary:

AB 1181, Haney. Firefighters: personal protective equipment.

The California Occupational Safety and Health Act of 1973 provides the Division of Occupational Safety and Health within the Department of Industrial Relations with the power, jurisdiction, and supervision over all employment and places of employment necessary to enforce and administer

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all occupational health and safety laws and to protect employees. The act grants to the Occupational Safety and Health Standards Board, an independent entity within the department, exclusive authority to adopt occupational safety and health standards within the state.

Beginning July 1, 2018, and every 5 years thereafter, the act requires the board, in consultation with the department, to complete a comprehensive review of all revisions to National Fire Protection Association standards pertaining to certain personal protective equipment (PPE) and requires the board to consider modifying existing safety orders and to render a decision regarding the adoption of necessary changes to safety orders, or other applicable standards and regulations, no later than July 1 of the subsequent year, if the review finds that the revisions to applicable National Fire Protection Association standards provide a greater degree of personal protection than the safety orders.

This bill would, in addition to the above-described requirement, require the board to consider modifying its existing safety order regarding firefighter personal protective equipment by January 1, 2028, to address National Fire Protection Association performance standards for PPE that are not relevant or applicable to how firefighters utilize their PPE and that result in the use of perfluoroalkyl and polyfluoroalkyl substances, fluoropolymers, flame retardants, and other hazardous substances in firefighting personal protective garments and auxiliary firefighting PPE, as provided. The bill would also require, by July 1, 2026, the Division of Occupational Safety and Health to report on progress toward implementation of the modified PPE safety standards, as provided. The bill would also make related findings and declarations.

Board staff is monitoring for potential impacts on Board operations.

AB-1371 Occupational safety and health: employee refusal to perform hazardous tasks. (2025- 2026) – NO UPDATE

(Sharp-Collins)

Date	Action
03/13/25	Referred to Com. on L. & E.
02/24/25	Read first time.
02/22/25	From printer. May be heard in committee March 24.
02/21/25	Introduced. To print.

Summary:

AB 1371, as introduced, Sharp-Collins. Occupational safety and health: employee refusal to perform hazardous tasks.

Existing law, the California Occupational Safety and Health Act of 1973, requires employers to comply with certain safety and health standards, as specified, and charges the Division of

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Occupational Safety and Health in the Department of Industrial Relations with enforcement of the act. Existing law prohibits an employer from laying off or discharging an employee for refusing to perform work that would violate prescribed safety standards where the violation would create a real and apparent hazard to the employee or other employees. Existing law defines “employee” for purposes of those provisions to include a domestic work employee, except as specified.

This bill would revise and recast those provisions to, among other things, allow an employee, acting in good faith, to refuse to perform a task assigned by an employer if it would violate those prescribed safety standards or if the employee has a reasonable apprehension that the performance of the assigned task would result in injury or illness to the employee or other employees. The bill would make the employee’s refusal contingent on the employee or another employee, if reasonably practical, having communicated or attempted to notify the employer of the safety or health risk and the employer having failed to provide a response that is reasonably calculated to allay the employee’s concerns. The bill would require the employer to pay the employee full wages during their scheduled work hours until, among other things, the employee can reasonably conclude that the task will no longer result in the risk of serious injury or illness to the employee or other employees. The bill would prohibit an employer from using an employee’s refusal to perform an assigned task as grounds for any disciplinary action and would make certain retaliation protections applicable to the bill’s provisions. The bill would delete the provision defining “employee” to include a domestic work employee.

Board staff is monitoring for potential impacts on Board operations.

AB-1424 Corrections. (2025-2026) – NO UPDATE

(Celeste Rodriguez)

Date	Action
05/23/25	In committee: Hearing postponed by committee
05/07/25	In committee: Set, first hearing. Referred to APPR. suspense file.
04/24/25	From committee: Do pass and re-refer to Com. on APPR. (Ayes 5. Noes 1.) (April 23). Re-referred to Com. on APPR.
04/09/25	From committee: Do pass and re-refer to Com. on L. & E. (Ayes 6. Noes 2.) (April 8). Re-referred to Com. on L. & E.
03/25/25	Re-referred to Com. on PUB. S.
03/24/25	From committee chair, with author’s amendments: Amend, and re-refer to Com. on PUB. S. Read second time and amended.
03/24/25	Referred to Coms. on PUB. S. and L. & E.

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Date	Action
02/24/25	Read first time.
02/22/25	From printer. May be heard in committee March 24.
02/21/25	Introduced. To print.

Summary:

AB 1424, as amended, Celeste Rodriguez. Corrections.

Under existing law, the California Occupational Safety and Health Act of 1973, the Division of Occupational Safety and Health investigates complaints that a workplace is not safe and may issue orders necessary to ensure employee safety. Under existing law, certain violations of those provisions or a standard, order, or special order authorized by those provisions are a crime.

Existing law establishes the Department of Corrections and Rehabilitation and sets forth its powers and duties regarding the administration of correctional facilities and the care and custody of inmates. Existing law establishes the Office of Emergency Services within the office of the Governor and requires the office to be responsible for the state's emergency and disaster response services for natural, technological, or manmade disasters and emergencies.

This bill would require the division, by December 1, 2026, to submit a rulemaking proposal for the Occupational Safety and Health Standards Board's review and adoption, specifically applicable to workers in any prison or institution under the jurisdiction of the Department of Corrections and Rehabilitation, as specified.

This bill would require the Department of Corrections and Rehabilitation to comply with these provisions and any order, rule, or regulation adopted by the Occupational Safety and Health Standards Board pursuant to them. Because this bill would expand the definition of an existing crime, this bill would impose a state-mandated local program.

This bill would require the Department of Corrections and Rehabilitation to take various actions relating to climate control and working conditions in prisons, including, among other things, ensuring that facilities are equipped with adequate cooling systems, adding shade structures, ensuring that facilities install temperature monitoring systems, as specified, and establishing and regularly updating an emergency response and evacuation plan for each correctional facility to protect the safety of incarcerated individuals during extreme weather events. The bill would require the department to implement an annual training for all staff on preventing, identifying, and managing heat-related illnesses. The bill would require the department to create a working group, as specified, to ensure regular maintenance, upkeep, accessibility of use, and implementation of these actions related to climate control and working conditions. The bill would require the department, on January 1, 2027, and each January 1 thereafter, to submit a report to the Governor, the Legislature, and the Office of Emergency Services, detailing the progress in implementation of these measures.

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The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Board staff is monitoring for potential impacts on Board operations.

AB-1442 Essential Worker Commission. (2025-2026) – NO UPDATE

(Avila Farías, Alvarez, Carrillo, and Solache)
(Coauthors: Ransom, Rubio, and Wilson)

Date	Action
04/23/25	In committee: Set, first hearing. Hearing canceled at the request of author.
04/01/25	Re-referred to Com. on L. & E.
03/28/25	From committee chair, with author's amendments: Amend, and re-refer to Com. on L. & E. Read second time and amended.
03/28/25	Referred to Com. on L. & E.
02/24/25	Read first time.
02/22/25	From printer. May be heard in committee March 24.
02/21/25	Introduced. To print.

Summary:

AB 1442, as amended, Ávila Farías. Essential Worker Commission.

Existing law establishes the Labor and Workforce Development Agency, consisting of various offices and entities, including the office of the Secretary of Labor and Workforce Development, the Agricultural Labor Relations Board, and the California Workforce Development Board.

This bill would establish the Essential Worker Commission within the Labor and Workforce Development Agency, to review, investigate, and analyze issues relating to essential workers in the state, including workplace safety and health protections and wages and benefits for undocumented workers. The bill would require the Essential Worker Commission, based on that review, investigation, and analysis, to establish the Essential Worker Legal Work Program to provide essential workers with legal pathways to remain in California and work lawfully.

Board staff is monitoring for potential impacts on Board operations.

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SB-20 Occupational safety: fabrication activities on slab solid surface products. (2025-2026) – UPDATE

(Menjivar)
(Principal coauthor: Celeste Rodriguez)
(Coauthor: Kalra)

Date	Action
10/13/25	Chaptered by Secretary of State. Chapter 734, Statutes of 2025.
10/13/25	Approved by the Governor.
09/16/25	Enrolled and presented to the Governor at 3 p.m.
09/09/25	Assembly amendments concurred in. (Ayes 40. Noes 0.) Ordered to engrossing and enrolling.
09/08/25	In Senate. Concurrence in Assembly amendments pending.
09/08/25	Read third time. Passed. Ordered to the Senate.
09/03/25	Read second time. Ordered to third reading.
09/02/25	Read second time and amended. Ordered to second reading.
08/29/25	From committee: Do pass as amended. (Ayes 11. Noes 0.) (August 29).
08/20/25	August 20 set for first hearing. Placed on APPR. suspense file.
07/10/25	From committee: Do pass and re-refer to Com. on APPR. (Ayes 6. Noes 0.) (July 9). Re-referred to Com. on APPR.
07/10/25	Coauthors revised.
06/09/25	Referred to Com. on L. & E.
06/03/25	In Assembly. Read first time. Held at Desk.
06/02/25	Read third time. Passed. (Ayes 38. Noes 0.) Ordered to the Assembly.
05/27/25	Read second time. Ordered to third reading.
05/23/25	Read second time and amended. Ordered to second reading.
05/23/25	From committee: Do pass as amended. (Ayes 6. Noes 0.) (May 23).

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Date	Action
05/16/25	Set for hearing May 23.
04/21/25	April 21 hearing: Placed on APPR. suspense file.
04/04/25	Set for hearing April 21.
04/01/25	Re-referred to Com. on APPR.
04/01/25	Withdrawn from committee.
03/27/25	Read second time and amended. Re-referred to Com. on HEALTH.
03/26/25	From committee: Do pass as amended and re-refer to Com. on HEALTH. (Ayes 5. Noes 0.) (March 26).
03/18/25	Set for hearing March 26.
03/13/25	From committee with author's amendments. Read second time and amended. Re-referred to Com. on L., P.E. & R.
01/29/25	Referred to Coms. on L., P.E. & R. and HEALTH.
12/03/24	From printer. May be acted upon on or after January 2.
12/02/24	Introduced. Read first time. To Com. on RLS. for assignment. To print.

Summary:

SB 20, Menjivar. Occupational safety: high-exposure trigger tasks on artificial stone. Existing law establishes the Department of Industrial Relations in the Labor and Workforce Development Agency and requires the department to be conducted under the control of an executive officer known as the Director of Industrial Relations.

Existing law states that the function of the department, among other things, is to foster, promote, and develop the welfare of the wage earners of California, to improve their working conditions, and to advance their opportunities for profitable employment and vests the department with responsibility for administering the state plan for the development and enforcement of occupational safety and health standards relating to issues covered by corresponding standards adopted pursuant to federal law.

Existing law establishes the Occupational Safety and Health Standards Board within the department to adopt occupational safety and health standards for the state, including standards dealing with exposure to harmful airborne contaminants.

Existing law requires the Division of Occupational Safety and Health within the department to

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enforce all occupational safety and health standards, as specified. A violation of these standards and regulations under specific circumstances is a crime.

Existing law, the California Occupational Safety and Health Act of 1973 (OSHA), requires employers to comply with certain safety and health standards, as specified, and charges the Division of Occupational Safety and Health with enforcement of the act. OSHA defines “serious injury or illness” for purposes of the act to mean any injury or illness occurring in a place of employment or in connection with any employment that results in one of a list of conditions, including inpatient hospitalization, as provided, the loss of a member of the body, any serious degree of permanent disfigurement, and impairment sufficient to cause a part of the body or the function of an organ to become permanently and significantly reduced in efficiency on or off the job, as specified. Under OSHA, certain knowing, negligent, or willful violations of safety and health standards are punishable as a misdemeanor.

This bill would add silicosis and silica-related lung cancer to the list of conditions that, if resulting from an injury or illness occurring in a place of employment or in connection with an employment, would constitute a “serious injury or illness.” By expanding the scope of a crime under OSHA, the bill would impose a state- mandated local program.

OSHA creates a rebuttable presumption that a “serious violation” exists in a place of employment if the division demonstrates that there is a realistic possibility that death or serious physical harm could result from the actual hazard created by the violation. OSHA defines “serious physical harm” for purposes of that provision.

This bill would expand that definition of “serious physical harm” to include silicosis and silica-related lung cancer.

The bill would impose restrictions on specified high-exposure trigger tasks on artificial stone, as those terms are defined. Specifically, a person or entity engaged in high-exposure trigger tasks would be prohibited from using dry methods, and would be required to use effective wet methods when engaging in any high- exposure trigger tasks. The bill would make a violation of these provisions grounds for, among other disciplinary action, an immediate order by the division prohibiting continued work. The bill would require the division to enforce these provisions by issuing a citation alleging a violation and a notice of civil penalty.

The bill would require the owner or operator of a fabrication shop, or any individual who will employ another individual to perform high-exposure trigger tasks in a fabrication shop, to ensure that an employee who will perform high-exposure tasks receives specified training and, beginning on July 1, 2026, and annually thereafter, to attest to the division that these employees have been trained. The bill would require the division to enforce these provisions by issuing a citation alleging a violation and a notice of civil penalty.

The bill would require the State Department of Public Health to consider a report of silicosis related to occupational exposure to artificial stone a serious illness and to report that case to the division. The bill would require the division, if it receives such a report, to subject the employer or place of employment to investigation, as specified. The bill would require the division to notify the State Department of Public Health of any cases of silicosis related to artificial stone

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identified through enforcement activities. The bill would require the State Department of Public Health to conduct specified activities to address silicosis risk exposure in fabrication shops, including providing technical assistance to local health jurisdictions engaged in silicosis surveillance and prevention activities.

The bill would define various terms for these purposes. The bill would make findings and declarations related to these provisions.

Existing constitutional provisions require that a statute that limits the right of access to the meetings of public bodies or the writings of public officials and agencies be adopted with findings demonstrating the interest protected by the limitation and the need for protecting that interest. This bill would make legislative findings to that effect.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement. This bill would provide that no reimbursement is required by this act for a specified reason.

Board staff is monitoring for potential impacts on Board operations.

SB-234 Wildfires: workgroup: toxic heavy metals. (2025-2026) – NO UPDATE

(Niello)
(Coauthor: Allen)

Date	Action
08/29/25	August 29 hearing: Held in committee and under submission.
07/16/25	July 16 set for first hearing. Placed on suspense file.
07/02/25	From committee: Do pass and re-refer to Com. on APPR. with recommendation: To consent calendar. (Ayes 7. Noes 0.) (July 1). Re-referred to Com. on APPR.
06/27/25	From committee with author's amendments. Read second time and amended. Re-referred to Com. on E.S & T.M.
06/24/25	From committee: Do pass and re-refer to Com. on E.S & T.M. with recommendation: To consent calendar. (Ayes 14. Noes 0.) (June 23). Re-referred to Com. on E.S & T.M.
06/05/25	Referred to Coms. on NAT. RES. and E.S & T.M.
05/28/25	In Assembly. Read first time. Held at Desk.
05/28/25	Read third time. Passed. (Ayes 37. Noes 0.) Ordered to the Assembly.
05/27/25	Read second time. Ordered to third reading.

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Date	Action
05/23/25	Read second time and amended. Ordered to second reading.
05/23/25	From committee: Do pass as amended. (Ayes 6. Noes 0.) (May 23).
05/16/25	Set for hearing May 23.
05/12/25	May 12 hearing: Placed on APPR. suspense file.
05/02/25	Set for hearing May 12.
05/01/25	From committee: Do pass and re-refer to Com. on APPR. with recommendation: To consent calendar. (Ayes 8. Noes 0. Page 963.) (April 30). Re-referred to Com. on APPR.
04/09/25	From committee with author's amendments. Read second time and amended. Re-referred to Com. on E.Q.
04/02/25	Set for hearing April 30.
03/25/25	From committee: Do pass and re-refer to Com. on E.Q. with recommendation: To consent calendar. (Ayes 7. Noes 0. Page 532.) (March 25). Re-referred to Com. on E.Q.
03/12/25	Set for hearing March 25.
02/05/25	Referred to Coms. on N.R. & W. and E.Q.
01/29/25	From printer. May be acted upon on or after February 28.
01/28/25	Introduced. Read first time. To Com. on RLS. for assignment. To print.

Summary:

SB 234, as amended, Niello. Wildfires: workgroup: toxic heavy metals.

Existing law requires the Department of Forestry and Fire Protection to do certain things with respect to fire prevention, including organizing fire crews and patrols.

This bill would require, upon appropriation by the Legislature, the Department of Forestry and Fire Protection, the Office of Emergency Services, and the Department of Toxic Substances Control, in consultation with specified entities, to form a workgroup related to exposure to toxic heavy metals after a wildfire. The bill would require the workgroup to do certain things, including establishing best practices and recommendations for wildfire- impacted communities, first responders, and other personnel engaged in wildfire response and cleanup to avoid exposure to heavy metals after a wildfire, including outreach. The bill would authorize the Department of Forestry and Fire Protection to contract with public universities, research institutions, and other

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technical experts to support the work of the workgroup. The bill would require the Department of Forestry and Fire Protection, the Office of Emergency Services, and the Department of Toxic Substances Control to report their findings to the Legislature not more than 3 years after the convening of the first meeting of the workgroup.

Board staff is monitoring for potential impacts on Board operations.

H.R.86 NOSHA Act. (2025-2026) – NO UPDATE

(Biggs)

Date	Action
01/03/25	Referred to the House Committee on Education and Workforce.
01/03/25	Introduced in House

Summary:

H.R., as introduced, Biggs. NOSHA Act.

This bill abolishes the Occupational Safety and Health Administration (OSHA) and its functions. OSHA, which is part of the Department of Labor, sets and enforces workplace safety and health standards and provides related training, outreach, education, and assistance.

Board staff is monitoring for potential impacts on Board operations.

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

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Memorandum

Date: November 14, 2025**To: Board Members****From: Occupational Safety and Health Standards Board
Amalia Neidhardt, Principal Safety Engineer****Re: Autonomous Agricultural Tractor Preliminary Rulemaking Activities Update**

At the November 21, 2024 Occupational Safety and Health Standards Board (OSHSB) meeting ([OSHSB - VideoBookcase](#)), the Board directed OSHSB staff to convene an Advisory Committee (AC) to discuss the topic of Autonomous Agricultural Tractors/Equipment, make a plan for data collection, evaluate the implications of that data collection, identify issues to address and recommend the best path forward.

At the June 26, 2025, Board meeting, Chair Alioto reiterated that the Board is charged with determining whether a regulation has a positive impact on the health and safety of workers. The focus of the AC is to determine if autonomous agricultural equipment is safe while in use when workers are present. At an AC interested parties discuss issues relevant to workers' safety when this equipment is present. The AC may make recommendations on issues such as data needed to assess the safety of this equipment when workers are present, the scope of data to ensure the equipment functions as expected, and other relevant issues.

This memorandum details the different activities that have been completed since November 2024.

Summary of Activities

a) Request: Create a balanced committee. Status: Goal Achieved.

On December 13, 2024, and January 9, 2025, OSHSB staff conducted two virtual outreach meetings to identify and invite worker advocates to attend and participate in the Autonomous Ag Tractor AC. Through these outreach efforts, more than 20 worker advocates and community organizations were reached. To best facilitate discussions and ensure a balanced committee, the AC was capped to 25 participants, with an equal member representation between industry and labor representatives.

b) Request: Set Up AC meetings to discuss the topic of Autonomous Agricultural Tractors. Status: Goal achieved.

Three AC meetings were held. A virtual AC meeting was held on March 26, 2025, followed by two in-person AC meetings on May 8-9, 2025, and August 6-7, 2025. The AC meetings included technical presentations from academia, California (CA) state agencies, manufacturers and a field demonstration that contributed to robust discussions. Recordings of these meetings are available on the OSHSB website¹.

The following agreements were reached during the AC meeting discussions:

- 1) If a regulatory proposal is considered, follow the Department of Motor Vehicles (DMV)'s three-tier permit approach.
- 2) Prohibit autonomous tractors from pulling platforms carrying workers.

c) Request: Consider Data Collection and Related Implications. Status: On Going.

a. Data Sharing and Challenges:

Several academia committee members shared published research articles reflecting a lack of injury and accident data associated with autonomous agricultural tractors. In a similar vein, a Cal/OSHA representative shared with the committee their initial review of citations under title 8 section 3441. These citations are not limited to the operation of agricultural tractors and primarily indicate accidents associated with implements or trailers pulled by tractors. Lastly, Board staff heard from NIOSH representatives who suggested the need for an injury code specific to autonomous tractors.

An international and national review of regulatory schemes was conducted, with the assistance of academia committee representatives, and other than guidelines, no safety regulations on autonomous agricultural equipment were identified. Additionally, no reports of occupational injuries/fatalities involving autonomous tractors are currently available from other States. However, Arizona recently legalized the use of driverless tractors, combines, and other robotic implements in agricultural fields, but the statute does not include language specific to worker safety and health².

¹<https://www.dir.ca.gov/oshsb/Autonomous-Agricultural-Tractors-AC-3.html>; <https://www.dir.ca.gov/oshsb/Autonomous-Agricultural-Tractors-AC-2.html>; <https://www.dir.ca.gov/oshsb/Autonomous-Agricultural-Tractors-AC.html>.

² Arizona in 2025 Where Flying Cars and Autonomous Tractors Redefine Law. Cohen Injury Law News Updates. <https://cohendisabilitylaw.com/arizona-in-2025-where-flying-cars-and-autonomous-tractors-redefine-law/> ; <https://www.12news.com/article/news/local/arizona/gov-katie-hobbs-signed-22-bills-monday-heres-what-they-will-change-arizona-laws/75-9813a3bb-9e78-4aa5-af91-246065e2661d>.

During the August 6–7, 2025 AC meeting in Salinas, two equipment manufacturers (Monarch and John Deere) presented on their autonomous tractor’s technology, including descriptions on how the safety features function. Additionally, Agtonomy provided the committee with a live field demonstration at a vineyard of an Agtonomy-equipped Bobcat autonomous tractor. This demonstration highlighted safety features and a question-and-answer session.

Cal/OSHA shared information regarding the limited data available from an approved experimental variance. Currently only one autonomous equipment manufacturer (Monarch) has an approved experimental variance. Monarch implemented their experimental variance to agricultural operations where workers are not present (Keep Out” policy), thus limiting the data collected regarding safety issues.

b. CA DMV Framework

Several AC members recommended considering the DMV three-tier approach as a framework for a possible regulatory proposal.

Tier	Description	Currently Approved Entities
1	Allows testing with a safety driver behind the wheel at all times.	30
2	Allows testing without a safety driver behind the wheel.	6
3	Allows the commercial deployment of autonomous vehicles.	3

The following are gaps in title 8 regulations compared to the requirements and tools the DMV uses in its testing and permit holder programs:

- DMV requires that all autonomous vehicles comply with National Federal Motor Vehicle Safety Standards. Companies that do not meet these standards have to secure an exemption from the Department of Transportation (DOT). Currently, there is no nationally recognized standard for self-propelled autonomous agricultural equipment that provides equivalent safety standards by the National Federal Safety Standards established by the DOT.

- DMV requires manufacturers to submit a report of disengagements³ and report any crash to DMV within 10 days. Cal/OSHA does not have anything comparable to the amount of data DMV has collected and given what little data is available through the one Cal/OSHA Experimental Variance in existence, there is not enough information on the safety of autonomous agricultural vehicles.
- DMV has a self-certification model where manufacturers must provide a summary of all the completed testing, including information on how they validated the technology is safe. Currently, there is no approved testing methodology that can validate the safety of self-propelled autonomous equipment, nor is there a nationally recognized safety standard that all autonomous tractor manufacturers must abide by.
- DMV can suspend or revoke a manufacturer's permit if it finds that the operation of an autonomous vehicle poses an unreasonable risk, or the manufacturer misrepresented information regarding the safety of their autonomous technology. Given that Cal/OSHA does not currently have an equivalent approval or permit process, labor representatives recommended it be mandatory that users of autonomous tractors either apply for an experimental variance or Cal/OSHA promulgate regulations requiring a permit application similar to title 8 section [341.1](#).

d) Notable suggestions from AC members:

- Any regulatory proposal should be limited to either lightweight (up to 500 lbs.), low power, slow autonomous vehicles; or limited to only those autonomous equipment to which Cal/OSHA has data on. For instance, proposing a regulation on only one type of autonomous tractor since Cal/OSHA has no current data on lightweight self-propelled autonomous equipment such as the [Burro](#).
- Data should first be collected either through an experimental variance or a permit process.
- Verifiable standards should be required before the Phase I deployment of autonomous tractors, or Cal/OSHA should authorize the use of the autonomous tractors before any deployment starts.
- Take into consideration that some autonomous agricultural tractors are not designed to fit an operator at the wheel but could have an observer in near proximity.

³ Every year, the manufacturer has to submit a Report of Disengagements to the DMV. These reports have to detail when the safety driver had to take control of the autonomous vehicle, and the manufacturer has to describe what happened and why they had to take over (these reports are also available online). [Disengagement Reports - California DMV](#)

- Data from all autonomous manufacturers regarding past accidents and near misses should be available to either a control third party or to Cal/OSHA.
- Industry representatives stressed the need to update title 8 section 3441(b) to accommodate this new technology as the existing language limits the ability to adopt technologies already being used in other states and countries.

e) Two Non-Rulemaking Options currently available

1. Cal/OSHA Experimental Variance Process

Encourage employers and manufacturers to apply for a Cal/OSHA Experimental Variance. Note that this option remains open even as other avenues (such as rulemaking) are being pursued.

PROS: This avenue would allow Cal/OSHA to gather data on autonomous agricultural equipment and help identify required safety criteria to be used in a future regulatory proposal. Additionally, an experimental variance can allow deployment before the entire rulemaking process is completed.

CONS: To date, only a limited number of applicants have applied. Additionally, this path would not address the safe use of the various self-propelled autonomous equipment being used in agricultural fields today.

2. Permanent Variance Application Process

Any employer can apply to OSHSB for a Permanent Variance. Instruction on applying for a variance can be found at https://www.dir.ca.gov/oshsb/oshsb_variance.html. As above, this option is always open to employers, even if rulemaking is ongoing, or no rulemaking is pursued.

PROS: Labor Code and title 8 regulations allow both Cal/OSHA and OSHSB to conduct an independent and separate evaluation of whether the applicant's proposal provides equivalent safety to that provided by the relevant regulation(s). This process would be much faster than applying for an experimental variance.

CONS: To date, no applications for permanent variances have been received.

f) Possible Rulemaking Options:

Given the information presented in the preceding sections, and considering that there was no uniform recommendation on the best path forward, the Board has the following options to direct Board staff to propose language on:

1. Use of Lightweight (up to 500 lbs.), Low Horsepower and Slow Autonomous Agricultural Equipment

Propose language allowing the use of lightweight (up to 500 lbs.), low horsepower and slow autonomous equipment. Because of the weight and engine horsepower limits, this option will exclude tractors⁴.

PROS: This avenue would be a first step toward addressing the use of autonomous agricultural equipment and could provide Cal/OSHA and OSHSB with additional time to gather data on collision avoidance reliability.

CONS: This path would limit the ability to adopt technologies already being used in other states and countries and would not address the safe use of the autonomous tractors being used in agricultural fields today, as well as applying to only a subset of autonomous equipment (i.e. lightweight, low horsepower, and slow.) Weight may not be the best criteria, as even compact tractors weigh between 1,500 lbs. to more than 3,000 lbs.⁵ By dealing with lightweight, low horsepower and slow-moving equipment, this limits the collection of data and does not address the use of different combinations of technologies to avoid collision.

2. Testing of Autonomous Agricultural Tractors with a Safety Driver at the Wheel/an Observer in Close Proximity at All Times

Propose language to address the testing of autonomous agricultural tractors that require a safety driver at the wheel or an observer in close proximity at all times (consistent with DMV's Tier I Framework). Require approval of an experimental variance that will detail and verify that minimum safety criteria are met before proceeding with the Tier 1 Testing Phase. For a permanent variance, the agricultural tractor manufacturer will need to show that their alternate program, method, practice, means, device, or process provides equal or superior safety for employees.

PROS: This would be the first step towards allowing the use of autonomous agricultural tractors in the field. It would also require that there be an operator or observer present to take control of the tractor (if needed) and would assist in gathering additional data.

CONS: It would mandate that all autonomous agricultural tractors apply for an experimental variance and go through this testing phase first, regardless of any prior allowances. Applying for an experimental variance would add an additional step and time to this process. Additionally, this option would address the safety of autonomous tractors but not all self-propelled autonomous equipment.

⁴ Title 8 section 3649 defines agricultural tractors as: A wheel type vehicle, or track vehicle, of more than 20 engine horsepower, designed to furnish the power to pull, carry, propel, or drive implements that are designed for agriculture.

⁵ Guide to Tractor Sizes (04/30/25). <https://www.bobcat.com/na/en/buying-resources/tractors/compact-tractor-sizes-guide>

3. Mandate All Self-propelled Autonomous Equipment Obtain Cal/OSHA Approval prior to Deployment.

Propose regulatory language mandating all manufacturers of self-propelled autonomous equipment, regardless of size, weight or specific technology, obtain Cal/OSHA approval prior to use. This is merited by the varied and numerous self-propelled autonomous equipment being used in agricultural fields today, the different combinations of technologies used by manufacturers to avoid collision and the lack of an approved testing methodology to validate the safety of this equipment. This proposal would also require manufacturers to immediately share accident history and near misses with Cal/OSHA. The goal is collision avoidance regardless of technology used or the type or size of the equipment. This option would not be limited to autonomous agricultural tractors.

PROS: This path would protect all workers as it will address the safe use of the various self-propelled autonomous equipment being used. It also allows Cal/OSHA to revoke approval when the self-propelled autonomous equipment presents a safety risk, causes an accident or the manufacturer misrepresents information regarding the safety of their autonomous technology. Additionally, it would promote innovation; provide potential avenues for the use of the various self-propelled autonomous equipment; and not be limited to autonomous agricultural tractors with more than 20 engine horsepower⁶.

CONS: It would mandate that all self-propelled and autonomous equipment, regardless of size, weight or horsepower, would have to complete the additional step of applying and receiving approval from Cal/OSHA prior to use. This additional step would add time that manufacturers will have to take into consideration prior to deployment.

4. Take No Action at this Time.

g) Board staff Rulemaking Recommendation:

No uniform recommendation emerged from the AC process, although invaluable information and discussion was had. Based on those discussions and research, Board staff believe the best option for drafting a regulation that will have a positive impact on the health and safety of workers is to ensure that Cal/OSHA becomes aware of any self-propelled autonomous equipment being used near workers prior to it being deployed. Board staff has been impressed with the positive results currently being generated at DMV and believes that a similar process can be utilized by the Board.

⁶ Title 8 section 3649 defines agricultural tractors as: A wheel type vehicle, or track vehicle, of more than 20 engine horsepower, designed to furnish the power to pull, carry, propel, or drive implements that are designed for agriculture. All self-propelled implements are excluded

Board staff can draft a proposal that would ensure manufacturers of all self-propelled autonomous equipment follow the DMV's approach: allow manufacturers to provide a summary of all the testing they have done and how they have validated that their technology is safe (self-certification) and require they submit any information on crashes or accidents to Cal/OSHA. This avenue allows the collection of data on whether or not this equipment performs as expected and also allows Cal/OSHA to revoke approval when any self-propelled autonomous equipment poses unreasonable safety risk, causes an accident or information regarding the safety of the autonomous technology was misrepresented.

To protect workers, address the safe use of the various self-propelled autonomous equipment and allow Cal/OSHA to revoke an approval when warranted, staff recommends option **"3": Mandate All Self-propelled Autonomous Equipment Obtain Cal/OSHA Approval prior to Deployment.**