

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.

**January 15, 2026
10:00 a.m.**

In-Person:

Office of Tax Appeals
Board Room
400 R Street
Sacramento, CA 95811

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

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

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

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

I. CALL TO ORDER AND INTRODUCTIONS

- A. Spanish translation instructions

II. REMARKS FROM THE CHAIR**III. PRESENTATIONS**

- A. Protecting Workers Without a Ban: An Emergency Licensing Solution and Enforcement Support

Laurie Weber, Chief Executive Officer

International Surface Fabricators Association

- Public Comment
- Board Member Comments and Questions

B. Refinery Safety Only Works with Union or Worker Selected Representatives

Norman Rogers, USW Local 675

Nick Plurkowski, USW Local 5

- Public Comment
- Board Member Comments and Questions

IV. PUBLIC HEARING

A. Explanation of Procedures

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

1. TITLE 8: **GENERAL INDUSTRY SAFETY ORDERS**

Section 5189.1

Process Safety Management for Petroleum Refineries

- a. Briefing on the Proposal
- b. Board Member Comments and Questions
- c. Public Comment

2. TITLE 8: **CONSTRUCTION SAFETY ORDERS**

Section 1512

GENERAL INDUSTRY SAFETY ORDERS

Section 3400

First Aid

- a. Briefing on the Proposal
- b. Board Member Comments and Questions
- c. Public Comment

V. 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
- 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: February 19, 2026
Hotel Katerina
1930 Baney Lane,
Chico CA 95928
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 the Diversity and Inclusion Office at DIO@DIR.CA.GOV. To ensure the availability of your requested accommodation, please submit your request at least 10 days in advance.

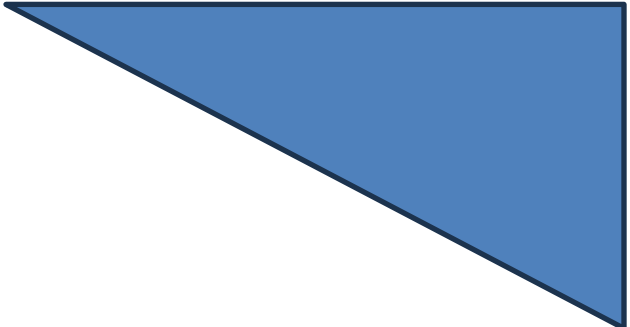
Please contact the [California Relay Service](#) by dialing 711 or (800) 735-2929 (TTY) or (800) 855-3000 (TTY-Spanish).

TRANSLATION

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

2026 Upcoming OSHSB Advisory Committee Meetings

1. Petition 589 – Construction Passenger Elevator – Article 14
April 1-2, 2026
Virtual Meeting
2. Petition 607 – Site Specific Fall Protection Plans
TBD
Virtual Meeting



Occupational Safety and Health Standards Board

Public Hearing

Process Safety Management for Petroleum Refineries

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

TITLE 8

GENERAL INDUSTRY SAFETY ORDERS

SECTION 5189.1

PROCESS SAFETY MANAGEMENT FOR PETROLEUM

REFINERIES

HYPERLINKS TO RULEMAKING DOCUMENTS:

[NOTICE/INFORMATIVE DIGEST](#)

[PROPOSED REGULATORY TEXT](#)

[INITIAL STATEMENT OF REASONS](#)

CALIFORNIA STANDARDS COMPARISON

DATE:

Page 1 of 6

SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR

SCOPE: Applicable throughout state unless otherwise noted.

FEDERAL: § Title 29 Code of Federal Regulations Section 1910.119	STATE: Title 8 California Code of Regulations, General Industry Safety Orders Control of Hazardous Substances	RATIONALE
§ 1910.119 – Process Safety Management of Highly Hazardous Chemicals	§ 5189.1. Process Safety Management for Petroleum Refineries.	No proposed change to the title of regulation.
(b) Definitions	(c) Definitions	No proposed change to the title of subsection (c).
1910.11(b) Definitions No corresponding federal definition.	5189.1 (c) Definitions Employee Representative. <u>An employee, who is on-site and qualified for the task, selected by a union, or by the employees in the absence of a union.</u> ~~A union representative, where a union exists, or an employee designated representative in the absence of a union that is on-site and qualified for the task.~~ The term ‘employee representative’ is to be construed broadly, and may include ~~the local union, the international union, or a refinery or contract~~ <u>an employee designated by these parties, at the site</u> such as the safety and health committee representative ~~at the site.~~ <u>Nothing in this subsection shall be construed to supersede an employee representative selection process in a collective bargaining agreement.</u>	Added clarification language to this definition. This change is necessary because it clarifies the requirements of a designated employee representative. Another change was made to clarify that the definition does not supersede the selection process in a collective bargaining agreement, to ensure that section 5189.1 does not impede compliance with the National Labor Relations Act (29 U.S.C. §§ 151-169), and to protect the bargaining rights of employees.
1910.11(b) Definitions Highly hazardous chemical means a substance possessing toxic, reactive, flammable, or explosive properties and specified by paragraph (a)(1) of this section.	5189.1 (c) Definitions Highly Hazardous Material. A flammable liquid or flammable gas, or a toxic or reactive substance. <u>Highly hazardous material does not include any substance in quantities below the lesser of the thresholds set forth in the California Hazardous Materials Business Plan rule at California Health and Safety Code section 25507(a)(1)(A) or Tables 1, 2, and 3 in</u>	The proposed change clarifies that highly hazardous materials will not include quantities below the lesser thresholds set forth in the California Hazardous Business Plan rule in the Health and Safety Code section 25507(a)(1)(A) or Tables 1, 2, and 3 in CCR title 19, section 5130.6.

CALIFORNIA STANDARDS COMPARISON

DATE:

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR

SCOPE: Applicable throughout state unless otherwise noted.

FEDERAL: § Title 29 Code of Federal Regulations Section 1910.119	STATE: Title 8 California Code of Regulations, General Industry Safety Orders Control of Hazardous Substances	RATIONALE
	<u>CCR, title 19, section 5130.6.</u>	
1910.11(b) Definitions No corresponding federal definition.	5189.1 (c) Definitions Major Change. Any of the following: • ~~(1) Introduction of a new process,~~ <u>(2) introduction of new process equipment, or</u> <u>(3) introduction of new highly hazardous material;</u> • ~~A that results in any operational change outside of established safe operating limits; or,~~ • ~~(4) Any alteration that introduces a new process safety hazard or worsens an existing process safety hazard. in a process, process equipment, or process chemistry, that results in any operational change outside of established safe operating limits. An alteration in process or process equipment does not include a replacement in kind.~~ <u>For subsections 2, 3, and 4, an introduction of new process equipment or alteration in process or process equipment must result in an operational change outside of established safe operating limits to be considered a major change.</u>	The proposed changes clarify the types of triggers specific to major changes within a process. Other proposed changes are non-substantive and without regulatory effect.
1910.119(e)(1) Process hazard analysis	(I) Hierarchy of Hazard Controls Analysis.	No proposed change to title of the subsection.
1910.119(e)(5) Process hazard analysis No equivalent federal provision.	(I) Hierarchy of Hazard Controls Analysis. 5189.1(I)(4)(D) Identify, analyze, and document relevant,	The amendment corrects a spelling error. This proposed change is non-substantive and without regulatory effect.

CALIFORNIA STANDARDS COMPARISON

DATE:

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR

SCOPE: Applicable throughout state unless otherwise noted.

FEDERAL: § Title 29 Code of Federal Regulations Section 1910.119	STATE: Title 8 California Code of Regulations, General Industry Safety Orders Control of Hazardous Substances	RATIONALE
	publically available information on inherent safety measures and safeguards. ~~This information shall include inherent safety measures and safeguards that have been: 1. achieved in practice by the petroleum refining industry and related industrial sectors; and 2. required or recommended for the petroleum refining industry and related industrial sectors, by a federal or state agency, or local California agency, in a regulation or report~~ <u>Note: This information may include inherent safety measures and safeguards that have been: 1. achieved in practice by the petroleum refining industry and related industrial sectors; and 2. required or recommended for the petroleum refining industry and related industrial sectors, by a federal or state agency, or local California agency, in a regulation or report.</u>	The amendment also revises what information may be considered in identifying, analyzing, and documenting publicly available information on inherent safety measures and safeguards. The amendment removes a mandatory provision to identify, analyze, and document types of inherent safety measures and safeguards and, instead, moves this provision to a note at the end of the subsection to be informational rather than mandatory. The proposed change to remove the mandatory provision will clarify the type of information that must be included during the HCA process.
No equivalent federal provision.	(I) Hierarchy of Hazard Controls Analysis. 5189.1(I)(4)(E) For each process safety hazard identified in subsection (I)(4), develop written recommendations in the following sequence and priority order. <u>The HCA team shall consider all process safety hazards that may be impacted by a particular safety measure or safeguard and shall select those safety measures or safeguards that, in the team's</u>	The proposed change makes more specific the requirements of the hierarchy of hazard control analysis process by directing the HCA team to evaluate all hazards that could be affected by a given safety measure, and then choose the safety measures that will most effectively reduce those hazards.

CALIFORNIA STANDARDS COMPARISON

DATE:
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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR

SCOPE: Applicable throughout state unless otherwise noted.

FEDERAL: § Title 29 Code of Federal Regulations Section 1910.119	STATE: Title 8 California Code of Regulations, General Industry Safety Orders Control of Hazardous Substances	RATIONALE
	<u>judgment, are most effective at reducing all such process safety hazards.</u> 1. Eliminate hazards to the greatest extent feasible using first order inherent safety measures; 2. Reduce any remaining hazards to the greatest extent feasible using second order inherent safety measures; 3. Effectively reduce remaining risks using passive safeguards; 4. Effectively reduce remaining risks using active safeguards; and, 5. Effectively reduce remaining risks using procedural safeguards.	
No equivalent federal provision.	(I) Hierarchy of Hazard Controls Analysis. 5189.1(I)(5) (5) The HCA team shall complete an HCA Report within 90 calendar days of developing the recommendations. The report shall include: (A) A description of the composition, experience and expertise of the team; (B) A description of the HCA methodology used by the team; (C) A description of each process safety hazard analyzed by the team, pursuant to subsection (I)(4)(B); (D) A description of the inherent safety measures and safeguards analyzed by the team, pursuant to subsection (I)(4)(C); and,	The proposed change clarifies that the HCA shall include, in writing, the rationale for not recommending the inherent safety measures and safeguards that it analyzed but did not ultimately recommend. The amendment is necessary to ensure transparency and accountability in the HCA process and to assess the extent to which employers reject recommendations made by the HCA team.

CALIFORNIA STANDARDS COMPARISON

DATE:
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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR

SCOPE: Applicable throughout state unless otherwise noted.

FEDERAL: § Title 29 Code of Federal Regulations Section 1910.119	STATE: Title 8 California Code of Regulations, General Industry Safety Orders Control of Hazardous Substances	RATIONALE
	(E) The rationale for the inherent safety measures and safeguards recommended by the team for each process safety hazard, pursuant to subsection (l)(4)(E); <u>and</u> (F) <u>The rationale for not recommending any inherent safety measures and safeguards analyzed by the team and identified pursuant to subsection (l)(4)(D).</u>	
1910.119(c) Employee participation. No equivalent federal provision.	5189.1 (q)(1) Add subsection (q)(1)(D): <u>With respect to employee participation in the PSM activities required by this section, an employer will allow for “effective participation” by employees in such activities if it provides advance notice of each such PSM activity and considers input provided by individuals participating in such PSM activities, including the employee representative, as specified in subsection (x). If the requisite advance notice is provided as specified above, an employer shall not be required to delay any PSM activity due to the failure by a union, or employees in the absence of a union, to select an employee representative, or the failure of a selected employee representative to participate in the noticed PSM activity. Nothing in this subsection shall be construed to require an employer to accept recommendations or findings of employee representatives.</u>	The proposed change clarifies the provisions relating to employee participation in PSM activities.

CALIFORNIA STANDARDS COMPARISON

DATE:

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR

SCOPE: Applicable throughout state unless otherwise noted.

FEDERAL: § Title 29 Code of Federal Regulations Section 1910.119	STATE: Title 8 California Code of Regulations, General Industry Safety Orders Control of Hazardous Substances	RATIONALE
1910.119(c)(1) Employee participation. No equivalent federal provision.	5189.1 (q)(2) ~~Authorized collective bargaining agents may select (A) employee(s) to participate in overall PSM program development and implementation planning and (B) employee(s) to participate in PSM teams and other activities, pursuant to this section.~~ <u>The written employee-participation plan will determine how employees are selected to participate in overall PSM program development and implementation planning and to participate in PSM teams and other activities, pursuant to this section. Any such employees shall be on-site and qualified for the task for which they are selected and shall be subject to all provisions of 8 CCR 5189.1(q)(1) applicable to employee representatives.</u>	The proposed change clarifies that the written employee participation plan will control employee participation, not authorized collective bargaining agents. The change is necessary to ensure adequate employee representation in the PSM program.

**PROCESS SAFETY MANAGEMENT FOR
PETROLEUM REFINERIES**

ADVISORY COMMITTEE

JANUARY 9, 2025

1. Summary	
Meeting title	Advisory Committee Meeting: Changes to PSM Regulation (8 CCR 5189.1)
Attended participants	35
Start time	1/09/25, 8:44:45 AM
End time	1/09/25, 4:02:07 PM
Meeting duration	7h 17m 21s
Average attendance time	3h 16m 15s
2. Participants	
Name	Email
Brill, Rachel@DIR	RBrill@dir.ca.gov
Paganelli, Carl@DIR	CPaganelli@dir.ca.gov
Nelmida, Michael@DIR	MNelmida@dir.ca.gov
Kong, Andrew@DIR	AKong@dir.ca.gov
Ocadiz, Lauren@DIR	LOcadiz@dir.ca.gov
Nick Plurkowski USW Local 5 (Unverified)	
Kevin Graulich/DIR-DOSH (Unverified)	
Fetterman, Jordan R (External)	Jordan.R.Fetterman@p66.com
Trombettas, Clyde J (External)	Clyde.J.Trombettas@p66.com
Michael Dossey (External)	Michael.Dossey@cchealth.org
Brega, Liz@EPA (External)	elizabeth.brega@calepa.ca.gov
Smith, Michael J. (External)	mjsmith@usw.org
Pavan Rami (External)	prami@aqmd.gov
Jack Cheng (External)	jcheng@aqmd.gov
Ted USW 326 (Unverified)	
Norman Rogers USW Local 675 (Unverified)	
Moron-Solano, Andrea@EPA (External)	Andrea.Moron-Solano@calepa.ca.gov
Paul Caballero (External)	PCaballero@aqmd.gov
Victor Yip (External)	VYip@aqmd.gov
alvin dong LAFD (Unverified)	
Ibarra, Ruth@DIR	Rlbarra@dir.ca.gov
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Klaber, Deena B.	DKlaber@gibsondunn.com
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Kevin Orellana (External)	korellana@aqmd.gov
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Hector Lopez (External)	hlopez@kernenergy.com
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Lee, Jeannie@EPA (External)	jeannie.lee@calepa.ca.gov
Jawad, Joe M (External)	Joe.M.Jawad@p66.com
Jerome Serrano (Unverified)	
Jason Kerr (External)	jkerr@kernenergy.com
Brian Keller (External)	bkeller@kernenergy.com

Changes to PSM Regulation (8 CCR 5189.1) Advisory Committee Meeting
Transcript January 9, 2025 5:07PM

Rachel Brill started transcription

Rachel Brill

We anticipate posting a transcript for this meeting after we are finished.

So in the interest of creating a transcript, I would ask that people not try to hide your names or go anonymous cause that's going to make it harder for us to make sure we have a clean record of who said what. If you have something that you would like to share with us, we welcome your comments. We would ask that you limit those to 3 to 5 minutes. If you want to speak longer than that, or if you have something to say that is longer than that, please feel free to send the comment to us in writing. If you are not speaking, please put yourself on mute. And if you want to speak, there is a little hand icon up at the top and you should click on that, and we will try to call on you in order. I'm going to ask my colleague Miss Ocadiz, to share her screen right now so that we can all be looking at the text and the proposed changes together. She's going to be writing your taking notes on your comments so that we have them for our records when we are putting together the rulemaking package to send to the Standards Board. And I think that might be all we have to say. I'm going to try to keep track of who has their hands up and I'm also going to have a timer going. I'll let you know when you get close to 5 minutes, but otherwise please feel free to jump right in.

Carl Paganelli

And Rachel, do we have a deadline for submission of written comments?

Rachel Brill

Yes, thank you. If you want to submit further comments after the Advisory committee meeting, please do so in writing no later than January 23rd and the e-mail address for that I will put that in the chat for this meeting because it's a little bit cumbersome. It's anyway, it's the e-mail address from which the invitation was sent out. But I will. I'll put that in the in the chat real quick. Yeah, so whoever wants to speak first, just raise your hand. I see Michael Dossey. Please go ahead.

Michael Dossey

Hi. So, in the first page that you're showing here is the intent of this reformatting to be more general to include renewable fuels? If so, you still list petroleum refineries everywhere.

Carl Paganelli

This is not the rule making for renewable fuels. We have a separate rule making project going on.

Michael Dossey

So then.

Carl Paganelli

For that, that's in response to a bill which I can't remember 3258, I believe. And then a petition 601 before the Standards Board from. USW. So that's entirely separate rule making. It's on its own path. It will be happening quickly also

Michael Dossey

Thanks girl. Thanks.

Rachel Brill

OK, Michael Smith.

Michael J. Smith

Good. Good morning. I'm Mike Smith. I'm the chair of national oil bargaining for the United Steel workers. I have a question, and I guess a comment real quick before we get started. Just can before we kick off can the state go through the I guess process in which this is going to take place. Is this the only advisory committee meeting? Is the plan gonna be? Can there kind of can you go do an overview kind of what the process is going to be looking like? And so that would be my question and the reasoning for that question is, as the steel workers we were, we were actually intervenors in the case in the lawsuit we've had, we've made multiple requests for information. We've been denied that by the state. Ongoing litigation, we've now become aware of the changes obviously since the settlement, but we still are awaiting a lot of that information to understand the intent. Rationale and everything behind all these changes. So it's really hard for us to be able to participate in this process without having all the information that we feel we need to be able to do that and be productive as the representative of the workers. Inside the facilities in which we're trying to protect and so us not having a voice throughout up into the process up until now and then now not having all of what we think is the required information to be able to productively participate is kind of put us in.

A. At a disadvantage is from our process. Our I guess in in contacting our attorney, we found out that we're awaiting information, all the information we requested. I guess it's gonna take some time, so I'm not sure when that's gonna be provided. I don't think that that's this forum, but that's gonna help us kind of understand your guys' process and timeline. So, I'll leave it at that for now.

Rachel Brill

So I will the part that I can answer is that we don't currently have another plan to hold an advisory committee. After this. The timeline for this rulemaking is somewhat truncated and we are we will have a public hearing though at which anyone who wants to provide further.

Comment is more than welcome to do so.

Carl Paganelli

So we are getting ready to submit this post, amendments to the Occupational Safety and Health Standards Board, Cal OSHA, which is where I work, and Lauren and Rachel work. We do not adopt these rules ourselves, our sibling agency, the Occupational Safety and Health Standards Board is the one. That actually is authorized by law to adopt amendments or do regulations. They will follow the normal formal rule making process. They have it laid out on their website.

I can put a link to the process for you, so this is called sometimes called informal rule making and when they the Standards Board begins formal rulemaking, there are a number of opportunities for people to comment. There'll be a public hearing, and they will request to have a 45 day comment period. So, anybody who's interested. Submit written comments, but there's also time for oral comments, so this is this is Kalush's only planned advisory meeting on these amendments.

However, there will be lots of opportunity during the year long process that it takes to adopt A rule or adopt amendments at the Standards Board. So, is that clear that that this is like step one? And then there's? Lots of time. It's built into the entire process where people can comment. And make suggestions so.

Michael J. Smith

That that's helpful understanding. I Yep. I mean, we were involved back in 2013 through the governor's task force. We, our Union, was involved and we had obviously the overhaul of PSM was a lot bigger than the amendments being made. So it was years and years and years of advisory committee before we even got to the Standards Board process. So, but this just we're concerned initially as talking with our locals in both northern Southern and California understanding ours.

Do you think to be able to have productive advisory committee meetings we have to have all the information. We're not really sure. We don't believe we have that at this time. We understand the dialogue. We're here to participate. Try to put together our point. But once we get to the Standards Board, my understanding is then will then, if we don't have a productive, I'll guess, informal, informal regulatory process, then what we end up with is either a yes or no there and then back at the drawing table and we'd like to have a good dialogue. Up to the Standards Board, but I just wanted. That's why I was asking for the overall big picture and do appreciate to understand the Standards Board process and we were aware back in the 1718 time frame of when that was done that. So, thank you.

Rachel Brill

I OK, I see Norman Rogers. Hi, Mr. Rogers. Go ahead, go right ahead.

Norman Rogers USW Local 675

Good morning. Excuse me. As a kind of a follow up to what Mike just mentioned, was anyone that works in a refinery involved in this process in reaching the settlement that we have?

Carl Paganelli

Was in litigation, so. The people who worked on it were people who worked for us so. And refineries.

Norman Rogers USW Local 675

OK. I guess. All right. Let me gather my thoughts up. I will have another question. I just gotta figure out how best to word it. Thank you. OK.

Rachel Brill

Nick Plurkowski

Nick Plurkowski USW Local 5

Thank you. I'm wondering if I mean the discussion right now. Are we proposing changes or? Are we just talking about, you know how this reads, I guess?

Rachel Brill

We are very interested in any thoughts that you might have to share, including if they are proposed changes to the changes that the changes to the changes that we are already contemplated. So honestly, either of those would be fine.

Nick Plurkowski USW Local 5

Thank you.

Rachel Brill

OK, if any, if there's no one else who has anything sort of overarching to say, maybe we can start with the first changed term that is up on the screen in front of us, which is revisions to the term employee representative. Does anyone? Would anyone like to comment on that?

Carl Paganelli

Lauren, could you make, or could you blow this up a little bit?

Rachel Brill

Yeah.

Carl Paganelli

Thanks.

Rachel Brill

Thank you.

Carl Paganelli

Thank you.

Rachel Brill

OK, Mr. Plurkowski.

Nick Plurkowski USW Local 5

Yeah, I'm. I'm just wondering what was problematic with the original? Definition. Is there examples of you know where this went haywire or? Why the? Why the need for the change, I guess.

Carl Paganelli

This change clarifies what the language is there, so that's all I can really say about that. All the changes are intended to make things clearer and more workable for everybody, for the employees, the employers and for us.

Rachel Brill

Mr. Smith.

Michael J. Smith

Yeah. So and so it helped clarify. So, there's no changes to the actual. Employee representative. There's no changes at all structurally to the process. If it's just clarifying. And also, in the answer you said it would help streamline the employees. Did you did? Was that were the employees consulted in in in complaining about a position where they were? At least not did this help streamline them. What? Where did you get that information? As far as that?

Carl Paganelli

I don't really want to go into the process of the litigation. I'm just. I'd like to talk about what we have here and what you think about it. If it's have you object to the wording. If you have a better idea, if you're fine with it. That's what we like to hear from you.

Michael J. Smith

And I'll just, I'll go along the lines with Nick's. Nick's question is that we did as employee representative. We didn't. We didn't see any issues with that. We didn't see any issues in the plant level with that and that's why we're trying to ask, I guess then maybe the from a legal position, if this is just clarifying and this doesn't change any aspect of our the representative's role, process selection determination, then we'll you. Know. Then we'll do that. But we're also trying to gather some of that information. Information request outside of this so.

Rachel Brill

OK. Thank you. Mr. Rogers.

Norman Rogers USW Local 675

Yes. So, the question I have has to do with the striking of the language of the local union, the International Union. The term employee representative. Yeah. Thank you for highlighting it the. Problem with that is we have a whole safety department that Tony Mizaki center back in Pittsburgh and as well as the USW Health and Safety Department. And we have experts on different pieces of the operation of a refinery that our local membership might not have. And this would seem to preclude us from bringing in those subject matter experts when needed. Particularly in the case of an incident investigation, now the company, on the other hand, can bring people in from all over the place.

For an incident investigation where before this suggested change, we could have access to outside help, and this seems to undo that. So this seems to be more this moves beyond the realm of clarification into impinging on something we had already settled.

Rachel Brill

OK, I'm gonna let Lauren finish taking notes on that. Thank you for your comment. It's we appreciate that. Mr. Plurkowski.

Nick Plurkowski USW Local 5

Yeah. The last line that's underlined nothing in this subsection shall be construed to supersede an employee representative selection process and a collective bargaining agreement.

I see that as hugely problematic in the fact that it could change. You know everything about the definition here. We could bargain different definitions that didn't make any sense to employees, the employer or Cal OSHA.

As far as selection criteria, it might be too hard to follow, so I don't see. Having kind of a wild card sentence like that in a definition as critical as this one being helpful to anybody. That bargaining language would supersede the Reg. And so that's hugely problematic for sites that might be in kind of a bind during bargaining. So, that makes sense.

Rachel Brill

So we yeah, no, absolutely. Would your suggestion be to just not include that just so we have all of our I just wanna make sure we're capturing everything you're saying. And so you would you be suggesting not to include that last sentence?

Nick Plurkowski USW Local 5

Yeah. I think The Reg needs to be a self-sufficient regulation, not something that can be affected by bargaining basically.

Rachel Brill

OK.

Nick Plurkowski USW Local 5

Thank you.

Rachel Brill

That's helpful. Thank you. Anybody else? I don't wanna rush. Moving on, but if anyone else has anything they'd like to provide input on for employee representatives, can you raise your hand? And otherwise, I think we'll move on to the next change. OK. Oh, Mr. Plurkowski, sorry.

Nick Plurkowski USW Local 5

Sorry, just one last comment, the designated by these parties is struck. I get that it's selected by a union at the top. Is there any clarification there? I mean, are you moving it from one spot to another or is that a different, you know, meaning?

Rachel Brill

I'm sorry. Just to be clear, you're asking if. When we strike employee designated representative, if the first sentence that was added is supposed to replace, that is that what you're asking?

Nick Plurkowski USW Local 5

And the latter designated by these parties.

Carl Paganelli

With the rewording, it didn't seem necessary anymore, just a.

Rachel Brill

OK. Mr. Rogers.

Norman Rogers USW Local 675

Yeah, this is to follow up with the next previous point about nothing in this subsection shall be construed to supersede an employee representative selection in a collective bargaining agreement. That any of this is tied to a collective bargaining agreement undermines what we ultimately would like to see out of the regulations, which is consistency. Adding that language in that it's tied to a collective bargaining agreement. This regulation could change every two 3-4 years and. That that doesn't work when you're talking about the health and safety of a refinery and the impacts it can have on the community.

Carl Paganelli

When you say could change every two or three years, I just have follow-up question. I didn't mean to interrupt if you were still talking. Sorry.

Norman Rogers USW Local 675

Mm hmm.

Carl Paganelli

You mean when the collective bargaining agreement, if that changes? That that's what you meant. OK, just.

Norman Rogers USW Local 675

It puts it up to the whatever might happen at the at the table at the negotiating table, and that could change wildly, particularly now that it would be known by the companies that we could drill down on this as a negotiating point and hold it hostage for something else we want to get and I don't know that we want our safety regulations entangled in that way.

Rachel Brill

OK. Thank you, Mr. Rogers. Mr. Plurkowski.

Nick Plurkowski USW Local 5

Yeah, the addition of qualified for the task. Oh, OK. So that just got moved, I guess.

Is that? A. Guess who determines the that they're qualified for the task.

That depends on the subsection that we'll be referring to later for who gets to be picked. Is that correct?

Carl Paganelli

I believe I believe so. So top of my head, I can't say. I think it would depend on the context.

Nick Plurkowski USW Local 5

I just don't want it to be. Like the employer's definition of qualified for, the task is their criteria in The Reg that would. Define what that is you know. Like a like a MOC, you gotta be a, you know, an operator qualified operator in the unit that you're talking about or whatever.

Carl Paganelli

Well, we've had qualified for the task in here, for instance, for the whole time. So, it's down below so and it hasn't seemed to cause problems.

Nick Plurkowski USW Local 5

So same nothing. Nothing changed as far as that. Thank you.

Rachel Brill

OK. Anybody else have thoughts they wanna share on the term employee representative? Well, specifically the changes to those that term. Right. Lauren, can you Scroll down to highly hazardous material please? Alright, so this is the next change. We're just gonna go through the changes as they come in the regulation. So this is the next one. And if anyone has thoughts, they want to share about this,

please go ahead and raise your hand. Mr. Rogers.

Norman Rogers USW Local 675

Not fully sure of if I ask the question, why are we able to ask that question here or just deal with the language as it is?

Rachel Brill

I think we'd prefer to deal with the language as it is. If you don't mind. Because I don't. You're gonna be satisfied by the answer, which is just that it came out of the litigation.

Norman Rogers USW Local 675

Well, then it made it into print as a change. There's already A level of dissatisfaction, so I would say that the.

Rachel Brill

Sure, understood.

Norman Rogers USW Local 675

I'll put it this way. In November of 2022, we hit 8 billion people on the planet. So we have people living everywhere closer to refineries than they've ever been before in higher numbers than they've ever been before. And So what? It might have made sense years ago is like, oh yeah, we got 10,000 lbs. of something and there's an issue not going to be a big deal, but that's not how we operate. That's not where we operate anymore. And so, to move backwards as far as the level of a of a product on site, the impacts it doesn't take as much to be an impact and impinge on the surrounding community as it did whenever 25507 was originally drafted and so. The recommendation would be to go back to what the original language was for highly hazardous material.

Rachel Brill

Hey. Thank you. Mr. Plurkowski. Nope, I'm Mr. Mr. Smith. Go right ahead.

Michael J. Smith

Thank you. Thank you. I won't ask why I'm trying to can you? Can the state provide? Maybe just a couple of examples of items that would be covered currently that won't be covered if this language were to be agreed to. Can you give us some examples of what this would eliminate from being covered under the rig?

Carl Paganelli

It would be in the unlikely event that there's less than the threshold quantities listed in. Section of the Health and Safety Code, which is the Cali PA regs that the refineries already follow. So.

Michael J. Smith

And currently the when this when 5189.1 was created it get rid of those thresholds. If I remember correctly right, there was no threshold requirement of highly hazardous materials.

Carl Paganelli

The original language was simply the first sentence.

Michael J. Smith

Yeah, and that that came from. Yeah. And that came from Albion just as a comment that came from a lot of instances and a lot of not only disasters within the state, but West TX back with the just the unknowns of all the different quantities and if you have a bunch of smaller quantities of as hazardous materials all put together in a similar place you could have. Major things so that, you know, remembering back, I don't have all my notes from the five years leading up to the discussion on hazardous material, but that was our position, whereas understanding, understanding and highly hazardous materials excluding one could. Open yourself up

or open up the rig. Not to protect the workers as much as it possibly could, but that's all.

Rachel Brill

Thank you. Mr. Plurkowski.

Nick Plurkowski USW Local 5

Yeah, I disagree with the change. It doesn't matter how much acid you get in your face for it to be a huge problem. So, you know, depending on the threshold and how we're going to. You know, mitigate hazards and stuff it. It just feels like we're like norm and Mike has pointed out that that we're just we're going backwards. You know way into the past where we've learned our lessons and basically our members and our neighborhoods and the environment deserve the attention that the original language provided. Thank you.

Rachel Brill

Thank you. Mr. Rogers.

Norman Rogers USW Local 675

Yeah, I would just add with this one in particular that we already know that we're dealing with something that's toxic reactive. It's a flammable liquid. In the aftermath of an event, should this language stand? There's an event and it turned out it was just under the threshold amount. I mean, who's going to bear the culpability for that, that you had something in place, you undid it and there was an event, there was an episode, and it comes to light. Oh well, originally this would have been covered under the rag and decisions were made to undo that. Not fully sure if that's a comment or not, but that's my statement on that piece.

Rachel Brill

I think that's a comment. That's fine. Thank you. Mr. Dossey.

Michael Dossey

Is this definition going to be used for? Like an overall you don't need to be in 5189.1 threshold definition. Or is this just for anything associated with the use of a highly hazardous material in at the facility.

Carl Paganelli

It is. It ties into highly hazardous material.

Michael Dossey

And so limiting to just above the threshold quantity, I would have to agree with some of the other commenters that it's putting. Limitation on the usefulness of this regulation B just for large releases.

Carl Paganelli

Thank you.

Rachel Brill

Thank you. Hold on a second. I see we have two hands raised. Mr. Rogers and then Mr. Plurkowski. And then I have. Alvin Dong from LA Fire. So go ahead, Mr. Rogers.

Norman Rogers USW Local 675

Just a quick question and that's what does this fix?

Carl Paganelli

Definition and an exact amount.

Rachel Brill

Mr. Plurkowski.

Nick Plurkowski USW Local 5

Yeah. I just want to point out that. In a, the scope and purpose, this section contains requirements for petroleum refineries to reduce the risk of major incidents and eliminate or minimize process safety hazards to which employees may be exposed,

and I feel like if we are. Cutting out anything under a threshold that now we have not minimized the same process safety hazards which are under the thresholds to which employees may be exposed. So, I believe this goes against the whole scope and purpose of the entire Reg.

Carl Paganelli

If you have alternatives, we would be happy to hear it.

Nick Plurkowski USW Local 5

I would just offer the original definition.

Rachel Brill

OK. Thank you, Mr. Dong.

Alvin Dong, LAFD

So the changes are to allow a bottom line threshold quantity and originally the threshold quantity was. If you have a highly hazardous material and now it appears that. The minimum quantity would be as low as 1 LB for certain materials in Title 19 and as a general rule, 55 gallons of liquid, 500 lbs. of solid or 200 lbs. of gas. That would be what would be covered under health and safety Code 25507 with certain exemptions.

Carl Paganelli

Those some of the quantities are quite low, some aren't.

Rachel Brill

K. It Mr. Dong, did you have anything else you wanted to say? Or can I lower your hand for you? Thank you. OK, thank you.

Alvin Dong, LAFD

You can lower the hand. Don't know how to lower the hand.

Rachel Brill

Yeah, you know what? You just click on where it says raise again. List that usually works for me. I hope I'm not giving bad advice, Mr. Trombettas.

Alvin Dong, LAFD

Umm.

Clyde J Trombettas

Just negotiated.

Carl Paganelli

Mr. Trumpettes, you're breaking up. It's hard to hear him.

Clyde J Trombettas

I'm sorry, was. This used to be this definition used to replace Appendix A that was in 5189.

Carl Paganelli

This definition is more comprehensive than the one that's in 5189.105189 the appendix A.

Clyde J Trombettas

OK. I just shared the concerns that Mike Dose had brought up.

Rachel Brill

Thank you. Is there anyone else who wants to comment on these proposed changes? OK, I'm gonna keep us moving and the next section with changes in it. It's under major change. And if anyone has comments on this, please feel free to raise your hand and we will keep moving. Mr. Plurkowski.

Nick Plurkowski USW Local 5

Yeah. So the, I mean the same question. What problem is this fixing? You know, introduction of makes it seem like it's the first time that this new process equipment has shown up. You know, inside the refinery compared to the old definition of, you

know, there's a new process equipment showing up, you know in the unit compared to what the unit looked like before. So once a piece of equipment comes into the refinery. Now it's good to just be put anywhere. Now I'm reading this, am I incorrect?

Carl Paganelli

This was intended to clarify what was already there, just to make sure that the words introduction of included the things that followed.

Nick Plurkowski USW Local 5

Is that is that? Refinery wide or is that, you know, into a specific system?

So if I have twin systems. And let's say one has the new pump. We don't have to do a full review. It's not going to be considered a major change to do the same new pump in the other twin system, if that makes sense.

Carl Paganelli

I'm having trouble because I don't really wanna answer a hypothetical question, but this is intended to just make everything what we already had clearer so that it there's no less ambiguity in what in the from the original language to this so.

Rachel Brill

OK. Anything else, Mr. Plurkowski? Or sorry.

Nick Plurkowski USW Local 5

Well, I'm sorry, are we doing the whole this whole 123 all at 4:00 and after that?

Sorry.

Rachel Brill

Please feel free to offer comments on any part of this definition that has changed.

Nick Plurkowski USW Local 5

OK. Thank you.

Rachel Brill

Yeah. So, either the inclusion of more repetitions of the words, introduction of or the changes to subsection 4 and then the note after that, any of that is fair game. Mr. Rogers.

Norman Rogers USW Local 675

Yeah. Was there a guideline being used as far as language change from getting rid of introduction and settling for any alteration?

Carl Paganelli

I think you're asking about what happened during the litigation and don't wanna comment on that, but I'm happy to listen in here to any suggestions you have about this language and what you think could be better or different, or if you prefer the old language.

Norman Rogers USW Local 675

Well, I guess what comes to mind is that we have sites now that have gone from processing. Being full blown refineries doing gas jet and diesel. And now we're doing renewable fuels using fat soil and greases, which is met. Now the question is, have they introduced new equipment, or have they altered old equipment so? Oh yeah, I'm not sure what questions can be answered, but that's a question. What does? What does that? What has been cleared up with that scenario?

Carl Paganelli

No. As of this moment, this regulation does not apply to. Units that don't process petroleum, right? The ones that use renewable feedstock, so that doesn't change anything. I mean this regulation by its own definition right now does not apply to like Phillips 66 and rodeo. That doesn't process petroleum at all, right? So, if the changes go through on the separate rule making. To include them then they would be included under 5189.1 those renewable refineries.

Norman Rogers USW Local 675

OK. So, we're entering into the realm of a hypothetical, but let's say that does pass that fat soil and grease is. It doesn't matter whether we're processing petroleum or fat soil and greases, then that's back to the question of introduction of a new process versus alteration. Will we be back changing this language again or looking to change it again?

Carl Paganelli

I don't think so. I mean, I don't know. What if somebody proposes it, we'll consider it.

Norman Rogers USW Local 675

Thank you.

Rachel Brill

Thank you, Mr. Plurkowski.

Nick Plurkowski USW Local 5

I've got a problem with the last addition for subsections 2-3 and four. An introduction of new process equipment or alteration process or process equipment must result in an operational change outside of established safe operating limits to be considered a major change. From what I understand, safe Oper. Limits can change depending on you know what an engineer will sign off on, so having. Kind of a movable target like that. You know you could expand your operating limits and then make a major change, but it wouldn't. It wouldn't trigger the major change because the operating limits now have captured it. So, I feel like that really cuts out most of the point of having the entire definition of 123 and four there. Well, in particular 2-3 and four. Paying attention. Paying attention and you know giving due consideration to new process equipment and new highly hazardous materials, whether or not there's a threshold or not. It's going to need that attention to make sure that we get it right. And so, you know the soft definition of safe operating limits and having it use the word must. It really just takes the. It makes the impact of the reviews, and everything takes. It takes the impact of this section completely out. I mean, why would you? Why would you change something outside of the limits when you could just adjust the limits and then basically not have to do? All the things that a major change triggers.

Carl Paganelli

I will point out that in original language that. Can just scroll back up again please? Operational change outside of established safe operating limits was part of the original regulation, so for new process.

Nick Plurkowski USW Local 5

But only for number only for number 4 though this is this is.

Carl Paganelli

One only for it was for 1-2 and three new processes, new process equipment and new highly hazardous materials.

Rachel Brill

Yeah.

Carl Paganelli

So that was already there. Right, we've been operating under that since we adopted this regulation. So, the same language.

Rachel Brill

Mr. Perkins, do you have a change you wanted to propose in addition to the comment or just sort of some concerns?

Carl Paganelli

Yeah. Proposed just deleting that last paragraph.

Rachel Brill

Yeah. Is that the proposal?

Nick Plurkowski USW Local 5

Yes.

Rachel Brill

OK. Thank you.

Nick Plurkowski USW Local 5

Thank you.

Rachel Brill

Does anybody else have any comments about this? Defined term and the changes that are being proposed. And if not, I think we're gonna move on to the next one.

But I don't wanna. I don't want to foreclose any anybody from speaking. OK, I'm not hearing anyone or seeing anyone, so let's move on to what section is. It says there's it's. J. Hulu. Day four, I wanna make sure I haven't screwed past anything. Hold on.

No, I'm sorry, it's L4. There we go. OK, so this is.

Bit further down in the regulation. If anyone has any comments they wanted to share about these proposed changes, please raise your hands now.

Carl Paganelli

Go down a little bit to the changes.

Rachel Brill

It just bounced back up. Lauren. Thanks. Mr. Rogers.

Norman Rogers USW Local 675

Yeah, the use of the term May is problematic. This information may include inherent safety measures etcetera. Yeah. What's the point with May? Because there's nothing that triggers any kind of action. If it doesn't happen.

Rachel Brill

OK. Thank you. Just wanna note that we have. There's this proposed change, and there's also proposed changes to subsection. E and subsection F so we'll make sure everyone catches those. Yeah, that's right.

Carl Paganelli

And then 5F.

Rachel Brill

Yeah, that's right. Thank you. I bet. I think. Yeah, you're right. It's 4E and 5F.

Michael Dossey

You go back to for you for a sec.

Rachel Brill

Sure. I do see Mr. Plurkowski. You have your hand raised. If Mr. Dossey, did you have something to say right now, or do you? Did you want to look at it for a little a bit longer?

Michael Dossey

Yeah. So, I had no comment. I just missed it when you first had it up on the screen. Thanks.

Rachel Brill

Got it. OK. Mr. Plurkowski. That's who has their hand raised, yes.

Nick Plurkowski USW Local 5

Yeah, just the addition in east, the Hch team shall consider all process safety hazards that may be impacted by a particular safety measure. And shall select those that in the team's judgment. I find that problematic because our employee representative is one person on a team, and we're basically outvoted every time. If it was going to be, you know, a vote. Is there anymore? Direction that can be given to.

You know that that. That statement, I guess. In the T in the in the team's judgment.

Carl Paganelli

Some language.

Nick Plurkowski USW Local 5

I don't. You know, it's just. It seems problematic.

Carl Paganelli

OK, if you have. I mean, you have a couple weeks, but if you have alternative, please. We send it our way.

Rachel Brill

And again, the address to send those comments to is in the chat, just in case anybody, I think I put that in there and then other people got here after that. So anyone who has written comments they wanna submit or if you think about it and have proposed language, please feel free to send us an e-mail.

Carl Paganelli

By January.

Rachel Brill

All right. Thank you. By January 23rd.

Carl Paganelli

Close of business. Thank you.

Rachel Brill

Close of business. Mr. Smith.

Michael J. Smith

Yeah, yeah. Question. Does this change like for each of the process safety hazards identified in the subsection develop written recommendations in the following sequence of priority order? Or does this change? Or does this mean the team wouldn't be addressing or writing recommendations for all of the hazards identified, and only those in which the team in the team's judgment are the most effective at reducing?

Carl Paganelli

No, it's wet.

Michael J. Smith

Or.

Carl Paganelli

It's what they're selecting in the end. Right. And they're explaining why they're selecting what they're selecting, right? cause, there wasn't a requirement to explain why we picked this.

Michael J. Smith

So what is this?

Carl Paganelli

Well, we picked this methodology instead of that methodology because you can do things. You can fix one safety thing and cause a cascade of other problems, right? It might work, but it might cause other problems. So, what's the one that is gonna? You know, we're asking for a written explanation of. Why you picked why the team picked what they did, which was never required before.

Michael J. Smith

OK. Thank you.

Rachel Brill

Mr. Plurkowski.

Nick Plurkowski USW Local 5

I'll just add to Norm's comment about D the problem of may versus shall. You know

the Chevron incident in 2012 having that information. Ahead of time like. Could it? Could have made a huge difference. You know the pipes thinning and it and it should have changed. Could have been redone a few times, so I mean that that's this rag stems out of, you know, incidents like that where? You know, the whole point is to get in there and identify, analyze and document. Not that we may get in there, identify, we may analyze, and we may document. So I just, you know, I wanna argue for the shall not the may.

Carl Paganelli

Which I'm sorry, just so I'm clear. Or we're clear. Which subsection are you talking about? D or E? D OK.

Nick Plurkowski USW Local 5

D is yeah delta, sorry.

Carl Paganelli

Thanks, D. Yeah, OK. Thanks. I was just because there's maze elsewhere and I just wanted to make sure I knew where your comment was focused on. Thanks. That's helpful.

Rachel Brill

Thank you for that. Anybody else on? Any changes to subsection L, wherever they may be. Or when you finish typing that comment, do you wanna maybe Scroll down a little bit so we can have? These other changes so folks can have them in front of them. This is. HTTP5F is also being changed.

Carl Paganelli

So this is what has to be in the report.

Rachel Brill

If you keep scrolling down a little more so that we can have the changes, there we go. Yeah, to FL5F on there.

Carl Paganelli

This is adding a requirement. That wasn't required before to explain why you're not doing something right. You found a safety measure. Or you considered one? But you're deciding not to use it. Why so? This is the rationale for that. Something we didn't have exactly.

Rachel Brill

Any thoughts on this addition to the requirements? OK, I think if that's.

We don't have thoughts on that one. Let's move on to the next and we can, we can go back. Oh, sorry.

Carl Paganelli

I'm curious if there's thoughts, good or bad, about this. If there are no thoughts, that's fine if I'm just curious, what if people have any thoughts about this? So, this is an addition that strengthens. The report cause, it explains. They have to give an explanation of we identified and analyzed an inherent safety measure, but we're not recommending it. So.

Rachel Brill

Mr. Trombettas.

Clyde J Trombettas

Can you hear me better now?

Carl Paganelli

Yes.

Clyde J Trombettas

OK. So, this doesn't really make too much sense to me. It says the rationale for not recommending any inherently safety measures or safeguards. Well, all through the

HCA process, you're always you are always recommending. Any type of inherent safety, measure or safeguard the question is, is whether the management will accept it or not, and if they choose not to accept it, then they have to explain it under subsection X. So, this to me is kind of a somewhat of a gotcha game where, say, an event happens, the HCA report was done by the team and maybe they just maybe there was a recommendation, they just didn't think of. Then I could see a citation coming to this. Particular section you know if the team didn't even think of a particular recommendation, but all recommendations have or have to be put at the end of the HCA report. And then it's depending on X whether they get accepted or not. Subsection X.

Carl Paganelli

I would say this is restricted and it's not to the things they didn't think of, but it's the things they analyzed and identified, right? So, the things that nobody thought of. I think they would be included enough.

Clyde J Trombetta

But if they didn't think of it right, it wouldn't.

Carl Paganelli

Then they didn't analyze it or identify it, and then they don't have to talk about it.

Clyde J Trombetta

OK. But I can see a compliance officer coming back cuz I've seen it done with pH as where they come in and say you didn't think about this in a PHA. So, we're gonna go ahead and cite you for something you didn't think about. And I kind of. See, this is kind of being the same thing where the team may not have. Maybe there wasn't enough expertise, or it was. The HCA was done. Before an event occurred where that recommendation would have possibly been part of. The HCA team. But to me this is this is more of a this. It doesn't make sense. And then two, it's kind of a gotcha for a compliance officer because if the team didn't recommend it, but the compliance officer said, well, you should have recommended it. You know, then I see them issuing a citation for this.

Rachel Brill

K. Thank you for that. Is there, is there some kind of language change you would want to see to clarify the issues that you've raised?

Clyde J Trombetta

Yeah, delete it.

Rachel Brill

Fair enough. OK. OK. Anything else that you wanted to say?

Clyde J Trombetta

That was it. Thank you.

Rachel Brill

OK. Thank you. Mr. Dossey and also please, if I'm mispronouncing anyone's name, please let me know.

Michael Dossey

You got mine, right?

Rachel Brill

OK.

Michael Dossey

So I'm gonna sort of mimic what Clyde just said. So in the past when we would regulate inherently safer systems. We first started out doing the Monday morning quarterback, so we would go there and say you forgot about this. You forgot about that. The fact remains we were not in the room. We were not with the experts

discussing things you typically don't write down, everything you discuss in some of these studies. So, we recognize that we shouldn't be going back there and trying to re-analyze something without having all the data and the and the SM es in the room. So we merely encourage them to keep the process there where they keep on learning how to do this better and better each time they go through it. And so, in a nutshell, the way this is worded I can see what Clyde has mentioned, that it could gravitate towards the inspector going in there to say. But did you think of this? And to be honest, those are. You don't know what you don't know. So, it it's many times it could be a very valid point, but it could also be completely off base because you don't know the process that well.

Rachel Brill

OK. Thank you. So, would your suggestion also be to remove this? Just to be clear?

Michael Dossey

Yeah. I would suggest eliminating that.

Rachel Brill

Thank you. Anyone else have any thoughts but bad and different on this?

Mr. Plurkowski.

Nick Plurkowski USW Local 5

With respect to Clyde's comment, I mean, this whole Reg is driving the consideration of you know everything. So, you know, missing something is not we shouldn't write this Reg so that it's possible to miss something and not be, you know, accountable for it. I mean the whole Reg is designed to make. The refineries accountable for the processes that they have and the risk that they're putting the employees in the environment. In so.

Rachel Brill

Is there anything you would suggest replacing it with or any way you would suggest redrafting it?

Nick Plurkowski USW Local 5

Maybe the rationale for not implementing any inherent safety measures and safeguards analyzed by the team. You know the comment that you know is management going to implement it. That's the real question. So, the team recommending it again, it's an HCA is recommendations. You know the full extent that we can be safe and then managements got to make a decision on what they're going to pay for and what they're not going to pay for so. I would say that you know the rationale for not implementing. Any of the recommendations?

Rachel Brill

OK. Thank you. Anything else at all? And again, we can go back to this if you know we break for lunch, you all think about it and come up with other things to say. But just for right now, does anyone else have anything to share on this? And if not, then I think the next section. We're looking at is Section Q1. And the changes are in. Let's see. There are changes to subsection D. And I think that maybe it, Lauren, can you Scroll down? These are all in D. I think that's, yeah, let's start there. And if there's anything after that, we'll go back, but or go down or we'll get to it rather, but. So, this is a proposed addition. Subsection Q1D. Mr. Smith.

Michael J. Smith

Yes. Is there a defined requisite advance notice somewhere? Like what is, I guess acceptable as far as? The advance notice. Secondly, as just coming from how just things work in a plant, you know our representatives if everything works as we see the Union, the representatives are selected by the work, the workers, the Members and at the end of the day these are usually added active. To where the company truly does control, whether who, whether those selected individuals. Given plant, what we always hear is business needs. Or not. So, the, this language gives kind of the ability to manipulate some of that, you know, on top of just what I my original question is the requisite advance notice, I understand not if the employer offers it, we've selected it somebody's avail. And they don't participate. I fully agree. There shouldn't be a citation for that, but also there should be some kind of standard in which once the representatives are selected, that persons made available to participate in there and not pulled back and then leaving the Union without a representative or the workforce without a Representative in those meetings.

Rachel Brill

With respect to your question about what advance notice means, would you propose language that might clarify that or just sort of, you're just sort of asking cause you're curious.

Michael J. Smith

Yeah, it's really. It's really impossible depending on. I mean, I hate to try to pick certain situations out of a, you know, out of 1000 situations as you whether it's MOCSAPHA is playing well in advance. You got mo, cs emergency, you got a lot of stuff happen. In the plant, but or investigations. But it's hard to. I don't know. That's why I was wondering what is it? It does, I guess does the state look at what it is. Is there some kind of legal approach to what requisite notice is? I would say in not trying to complicate everything. I think APHA notice is probably different than an MOC notice. I think an investigation notice depending on the severity of the incident. Most investigate, you know, all type of the Chevron 2012 incident. That investigation started. You know that. Next morning at 4:00 AM, obviously. I think you're setting yourself up if you put a definitive timeline, but that's why I'm wondering why that language was used. And how that could be used to kind of I guess avert or get around a citation.

Carl Paganelli

I'm pretty certain we've had the phrase advance notice in there in in this context the whole time and without a specific definition for the exact reasons you name, right? I mean, planning for turnaround is one thing. And there's, you know, when you need employee participation after an accident. It's, you know, it's immediate, right, so. Look at the circumstances of the situation, right?

Michael J. Smith

Yeah. And so then? So, then my then then then my concern, then I agree, and but then my concern would be the overall, I guess, manipulation of the availability because at the end of the day, the employees now that now that given that the at least the. Proposed language earlier. It has to be people in the plant, people that are qualified, determined by the company. Now it's got to be people that are in the plant determined by qualified by the company and. Allowed off of their normal scheduled work. So, if all of that line's up, then the workers may have their representative in the meeting. So, let's just.

Rachel Brill

K. Thank you, Mr. Trombettas. And then Mr. Plurkowski.

Clyde J Trombettas

Yeah, two things. One, and this is more of a question to Carl. Where you say the employer will allow for effective participation, and I'm curious why you don't have shall require. Or do you feel that because they will allow for Sims to be rather passive?

Carl Paganelli

If you wanna propose shall require, then we'll take that as a proposal.

Clyde J Trombettas

Then that's my proposal.

Rachel Brill

Thank you.

Clyde J Trombettas

And I think it was Nick's question about advance notice. I agree with Nick in this sense cuz when we first promulgated this regulation back in October 2017, one particular refinery said, I remember they had a PHA that was to be done on a Tuesday morning and they gave the operator advance notice.

They claimed that Monday night, when he came in for his graveyard shift. And they consider that advance notice that he would have to work his graveyard shift, and then he would workday shift to be on the PHA team. And you know, I don't believe that's advanced notice, but that that one particular refinery was kind of playing games with that. So, I would I agree with Nick. I think that there should be something. I don't know how you can word it but. You know, or how you can define it. Maybe. Maybe you have it under definition, but advanced notice means. Maybe that's what I would recommend. Having a definition under of what advanced notice is because I have seen them play this game quite a bit when I was with the division.

Rachel Brill

OK. Thank you. Mr. Plurkowski next and then Mr. Smith.

Nick Plurkowski USW Local 5

Yeah, I wanted to cover D and two underneath it. And yeah, the advanced Notice piece just seems like a game to play like Clyde was just saying. If I send you a meeting notice, does that count as the notice you know? And that's in 1000 emails also. You know, there's a limited amount of resources, especially with the new definition of employee representative having to be at the site and having to be qualified and stuff like that. You're shrinking the selection. Pool a lot. And then if somebody's double booked or like Clyde's example, they're working a night shift and now they're on day shift. And then all of a sudden, they simply, you know, can't participate. And that would be seen as the Union waiving its right to this participation.

That's absolutely critical to getting these things, you know, complete. Is that's largely problematic. I it this is the company and the employees working together. I don't know that you know the rag needs to get in there. I think the rag is not just suggesting that we work together with advanced notice. I think it's requiring that we work together, and I think it's up to the company and the employees to. To figure that part out, I don't know if The Reg needs to insert itself and how it's going to play that out if that makes sense. You know advance notice and you didn't show up, so there's no employee participation for this activity. That could become very problematic.

And then. For Di, I don't see an issue with the original language. In particular. The collective bargaining agents may select employees to participate, so the change the written employee participation plan now that plan is developed by the employer and employees as PSM. A moment. I feel like that again, could undermine in the same way that a bargaining agreement as far as how you're gonna select people, could also interfere with The Reg so, I feel like the regulation, you know, should be clear on requiring employee participation. It shouldn't get into, you know. However, the company's employees and employee representatives end up working out how it's gonna work. I think The Reg needs to be standalone. There will be participation. You guys figure it out. You know what I mean? Does that make sense? Am I?

Rachel Brill

Is the you would propose to just leave this the way it was, or did you have other?

Nick Plurkowski USW Local 5

Yeah, I feel like, you know the, the, the, the word play with may select. And I remember going through that a lot when it first came out.

Rachel Brill

Things.

Nick Plurkowski USW Local 5

I feel like that covers, you know if no one is selected then you don't have to get into the time frame stuff and everything like that, you know. But yeah, again the employee participation plan kind of undermines each task involved, like Mike said, there's, you know there's just thousands of scenarios. And we don't wanna get into just game playing those scenarios in a way that does not allow for participation, and it would be unenforceable to. To you know to kind of get around that, that game playing if you will. I mean it should be very clear that employee participation. Is going to happen and you know I feel like writing the flexibility into the regulation is very problematic when the regulations should simply require it.

Rachel Brill

I'm. I'm gonna ask that we move on just cause. I think this is the first time we've actually run down the five minute clock, but we can come back to this if you have more to add, Mr. Smith.

Michael J. Smith

Just I I'm gonna comment kind of and add I guess Offer Up something with the actual requisite time. I mean it, client offered up some kind of definition and stuff, but we don't really understand or know how that may work out. But it could be somewhat separated into planned PSM activities versus unplanned PSM activities. Obviously, pH as certain things are scheduled out far in advance versus things that are emergency, I will be referring back to I do have a question of I did. Also, to his, to his point of an employer it says will allow for what if? If I forgot what he had put or what he had referenced to recommend, where shall? Have effective participation. Let's say if the Under 2 which is now crossed out. If the Union or the representatives just don't select somebody or aren't able to participate, who would be then in violation of The Reg if the language did say. Shall the employer have effective participation, not allow for that was I remember that being a heavy topic in the beginning, because then it creates a whole other issue because this is I mean with the Union or the collective bargaining agents or the people. Who didn't select or make available somebody to participate? Would they be in violation of The Reg?

Carl Paganelli

We only have jurisdiction over employers.

Michael J. Smith

That's what I remembered. That's I remember that from the five years leading up in the original 1.

Carl Paganelli

Alright.

Michael J. Smith

And I want to think that that's why it said allow for because there may be times in which things don't line up and we either don't have the people or the availability or the expertise to participate or the Union just for some reason couldn't get somebody there and I remember the industry not wanting to be held responsible. All right.

Thanks.

Carl Paganelli

Can I say one thing? Could we take a break at 10:25 for about 5 to 10 minutes?

Rachel Brill

Oh, sure, yeah.

Carl Paganelli

Right about then cause I'm. It's we've been going about an hour and a half, so I think we have time for more comments, Mr. Rogers or something, but.

Rachel Brill

Sure. Yes, let me we have Mr. Rogers and Mr. Trombettas have their hands up. So maybe we can do those and then take a 10 minute break. Does that sound good? OK.

Carl Paganelli

OK, I have to take a break at 10:25, but you guys can go on ahead of I'll just catch.

Rachel Brill

Oh, OK, we can also we can also just take a break now and come back at 10:30 or.

Carl Paganelli

Read the transcript. Let's see what Mr. Rogers has to say then.

Rachel Brill

OK, sounds good, Mr. Rogers.

Norman Rogers USW Local 675

I like that auditing alright. So I would refer back to Section O, which is incident investigation and in section O under bullet .3 the employer shall initiate the incident investigation as promptly as possible, but no later than 48 hours. So, with those 48 hours there's an investigation team that needs. To be called together that investigation team, as the language calls out, will have. An employee representative process safety rep, health and safety rep and a subject matter expert. Hourly person from the impacted unit. So, this time frame piece as to kind of highlights what Mike was saying. Yes, PHAS has OPS. We know those are coming well in advance, but then something like an incident investigation on a major incident, we are already calling it out in the regs is 48 hours. So, do we need a separate list of activities or? Or how does all that work with the language that's proposed in D?

Rachel Brill

K. Thank you. And then Mr. Trombettas.

Clyde J Trombettas

Down to Section 2 real quick. OK. So, it says here the written employee participation plan will determine how employees are selected to participate. OK. Could you go back? Could you scroll up to one? You know, up to one Section 1.

Rachel Brill

It's like a, but it's above the A and under here Lauren. Yeah, there you go.

Trombettas, Clyde J

Yeah, there you go. So the written plan is supposed to be this. Section 1 requires that the employer and the employee's draft a written plan. But I guess this is what's always bugged me about this section is that in consultation with is pretty actually it's a little looser than recommendation by. You know the employer has, you know, in consultation with employees, employee and employee representatives, they develop a written plan. But this just means that they have to have consultation. The employer just has to have consultation with employees. It doesn't mean that they have to enact what? Recommend what they consult with and so based off of section one, I think that would have a very high impact on Section 2. They're coming to the written plan. And, yeah so, how the written plan is made in section one will require what's implemented in Section 2 and if all Section 1, all they have to do is consult with it doesn't mean they have to accept. It just means they have to consult with I think that. Could have a very huge impact on two, but that's my thought. My suggestion would be I proposed for Section 2 that the on-site usus the on-site help USW health and safety rep may select and my I had just referenced out authorized collective. I removed authorized collective bargaining agent, and I would put in on site USW health and or USW representative.

Rachel Brill

OK. Thank you. I do. I do see we have other hands raised. I'm gonna it is 10:25, so let's take a 10 minute break. If you can hold on to your thoughts and then we'll come back at 10:35. Thanks everyone. All right. We're gonna get started again. Thank you, Lauren. Mr. Plurkowski. Yes, you are back. Great. I think you had something. Well, you still have your hand raised.

Nick Plurkowski USW Local 5

Yeah. Yeah. I wanted to just double down on what. Clyde pointed out, in consultation with employees and employee representatives. The employer will make this written plan and that'll be it. I can tell you right now the difference between. The current Reg is that it clearly states the authorized collective bargaining agents may select, and that's what's getting the selection process done. That's the part that's being withheld.

The plan is basically following The Reg. So, if you scrub that part of the regulation, then it's all up to this plan that the employer is going to develop in consultation. So, I mean the to me this is the most critical piece of the regulation. If we don't get this part right, then the whole regulation is going to fall apart and not protect. You know our members and our communities. Because we're just not going to have the right people in the room again, I feel like this, Reg should explicitly state and require that employee participation. You know, shall happen. I feel like the opportunities for that advance notice and how it's going to work. It should be left up to Union employer, but the requirement should just be simple and easy and this this takes away the most critical, simple and easy piece that. Authorized collective bargaining agents may select employees to participate in PSM and participate on the PSM team so. What do you? I mean, I yeah, I can't put it into words. If you don't have the right people in the room, you're not gonna get the right work done. And if you don't get the right work done with regard to process safety. You know 2012 Chevron, I mean. Yeah, it. There's too many examples to get this wrong, so let's get it right. Thank you.

Rachel Brill

I just I don't mean to push you on this. I know you said you're not sure how you would word it. Would you rather see it be the way it was without these proposed changes?

Nick Plurkowski USW Local 5

Yeah, I again the you know it would be really interesting to pull up each of the refineries current plans and see you know how loosely written they are and what they you know what would happen? If we follow those plans instead of the clear language that authorized collective bargaining agents may select employees to participate. And the fact that these plans can continue to change. They might look good right out of the gate and then continue to change, but. Umm. Yeah, original language. There was a lot of time spent on that and I feel like it really threaded the needle to, you know, define and declare. Whose selection piece that was, and a requirement that we have it so this this. I really do see this as being that Section 2. The addition to that is just, it's just washing away all the effectiveness of the entire Reg. If we don't have the right employee participation. We're. We're just gonna miss it. Yeah, sorry I don't have better examples and everything. There's just too much there. There's just too many activities, too many details, every detail counts. And again, having the right people doing the right work is how we're going to get to the safety that that we're pursuing.

Rachel Brill

Great. Thank you. I see Mr. Rogers has his hand raised.

Norman Rogers USW Local 675

Yeah. Excuse me to follow up with, Nick was saying to leave it up to the. The written employee participation plan by the company. There's what they may be right now, which I believe most of them have just pretty much copied and pasted what was in the regulation and made that the policy, but to open it up to where they can change it to whatever they want. Is a death knell for the regulation any of the work that's been done since 2012 goes out the door if the employee participation piece isn't here and the other thing to keep in mind is that. For my case, I've been I've worked at the same refinery at the same location since 1999. Since 1999, I've worked for ARCO. I've worked for BP. I've worked for Tesoro. I've worked for endeavor and now I work for Marathon and each company does things differently, so one company might have it that if you have a leak and you put a clamp on it, that first opportunity you replace that piece of pipe. And get rid of the clamp. Other companies have a philosophy. We have a leak. We put a clamp on it. The Clamp's good. It's not leaking, and then it'll sit there for 10 years and that's the whim and whimsy that this language leads to as far as the employee participation piece. So that our folks are at the table, those people that are there regardless of who changes at the top as far as ownership goes, the employee participation piece needs to be as strong as possible, and it needs to have the represent the representation of the folks that act work there. I work with folks that have been there over 40 years and they know the refinery better than the management that comes in. And even if a company owns a facility. Let's say for 20 years as much as they move their management around from site to site, it just makes for too much change at the top and that one steady piece of the operation of the sites are our employees.

Rachel Brill

Thank you. So, would your proposal also to be to revert to the original language?

Norman Rogers USW Local 675

That's correct.

Rachel Brill

OK. Thank you. Anybody else? Mr. Dossey.

Michael Dossey

I would suggest that the original language be modified. Delete the new language, but

the authorized collective bargaining agents. I think in the lawsuit that was sort of the big topic of discussions, maybe change that wording to. Authorized Union representative or something that fits the bill for those in the Union language, but I think the main concern was the collective bargaining agent wording. That's my opinion.

Rachel Brill

OK. I don't. I don't wanna cut you off, Mr. Dawson. You still have your hand up. Is there something else? OK, great, Mr. Rogers.

Norman Rogers USW Local 675

Yeah, just real quick and I'm not sure how it works at non-represented sites, but. I'm pretty confident all of our USW representatives represented sites, have joint health and safety committees and so that choice of who the representative could be could flow from that committee following on Mr. Darcy's point, if you, if the collective bargaining agreement, collective bargaining agents wording is problematic I think. Hope I'm not speaking out of turn. The joint Health and safety committees. As an option, potentially.

Rachel Brill

Thank you. Anybody else? It's on any of the changes that we've proposed or that are proposed in this Rulemaking. You can go back to the beginning. Just any thoughts?

Michael J. Smith

Sorry.

Rachel Brill

Go ahead. No, go ahead. I saw your hands.

Michael J. Smith

All right. I think since we were towards the end, I just wanna. I wanna reiterate it, you know, and look, we're gonna participate. That's what we do. We've been involved in this process since the inception. Post the 2012 incident and been involved at all throughout the process. We're a little bit concerned about how we got to this point. I mean, I think there's other avenues in which we'll challenge or do whatever we have to do to that little bit concerned because just haven't seen it and I remember and I'll take us back to the initial when the very first 5189.1 was proposed and then industry came in with the work we were there and the state was there and the industry had 175 questions on each individual thing, and we went through and went through. We understand rationale. There was a document created that was the rationale behind every change. Within the Reg and coming into this, we just other than we know that there was a lawsuit, and it was settled. Even though we were intervenors, we had no idea about any discussions happening behind closed doors. And for our Members, you know the state, this, this, this organ, the department is, is tasked with keeping our members safe in the keeping our facilities safe, which is our members and the communities and being excluded up to this point and then now understanding that you know here. These changes. We've been paying closer attention because of our attorneys involved in the lawsuit, but we haven't gotten any explanation. Haven't gotten any understanding of other than we knew for the last five years, WISPA had thrown out a bunch of issues with Their Hague. These regs weren't. It went through a five year, I'll call it a negotiation process, but a five year process to get to where we were. We haven't been shown any issues that the industry has said that this language was problematic other than just the lawsuit. And so, our concern is that once again, where I it's kind of ironic in a in a rig that requires employee and representative participation. We've been excluded throughout this as in the development of these changes, and it's kind of I know it's not covered under the

PSM, right? But we've been excluded. Into this discussion, other than an opportunity to kind of give our thoughts on a Reg which we weren't the ones challenging and we had fought for five years to make our members safer in the communities and surrounding groups. So, I wanted to take that opportunity. I don't wanna didn't wanna do it in the middle of this. I do think this is important. We wanna. I wish there were more during the advisory committees in the past, there were a lot of other groups involved because this does impact a lot more than the people probably who received this in the 1st place and whether there's. Public comment period during the Standards Board process or not, I think this part is where things happen and what we noticed through the first part of this. You know PSM, Reg changing was everything. All the heavy lifting was done prior to that, so I'm a little bit disappointed and we'll continue. We're not giving up. We're going to continue to have our voice heard. We'll be at all the meetings in the future. But I don't want to make it sound like, look, we're participating. We still want more information. We want to understand the rationale why this is needed. We need to dig deeper into figuring out exactly what it changes, but we also don't want this to be a checkbox. recommendation exercise because the state promised that they do this. But then when we get to the next level, hey, we included the unions. We didn't really come up with any significant changes from the agreed to language with WISPA and here it is. So that's just. My honest opinion and doesn't mean we're not going to. We're going to be here because it's important to our Members and our Members are the ones at risk. Our members are the ones dealing with the chemicals and the explosions and the fires. So, it's our duty to be here, but it's it feels like we've been left out of a major process in this and really blocked off intentionally on this. So, I'll leave it there.

Rachel Brill

Thank you. Does anyone else have anything they wanna say? Any comments on the language? Mr. Rogers.

Norman Rogers USW Local 675

Yeah, the previous recommendation I had made suggesting joint health and safety committees choose the employee representative. That would be the members of that committee. It would fall to the hourly workforce portion of that committee. So not the committee as a whole, but that the employees are choosing their representative.

Thank you.

Rachel Brill

Got it. Thank you. I think that was for. Yeah, it's, it's. Yeah, it's two under this. Something 2.D. No, just two. There.

Lauren Ocadiz

But Mr. Rogers, I'm sorry you said that the option for the joint Health and safety committees, the members of the committees, would be. And I'm sorry I missed the last part.

Norman Rogers USW Local 675

It would be the hourly representatives of that committee, because those are joint committees, half made-up of management, half made-up of the hourly workforce. So, it be the hourly workforce choosing their representative for these activities.

Rachel Brill

So specifically the non-management members of those committees.

Norman Rogers USW Local 675

That's correct.

Rachel Brill

Got it. Yeah.

Norman Rogers USW Local 675

Thank you.

Lauren Ocadiz

Thank you.

Rachel Brill

So we have this scheduled until 4:00, but if you if folks wanna take some time to look at the language independently and then come back. Lauren and Carl and I will all be here, and we can write. We can capture your thoughts, and you don't have to you if you wanna take a break and sort of look at this more thoroughly, that's fine too.

Carl Paganelli

We will be taking a lunch break so.

Nick Plurkowski USW Local 5

Look is there.

Rachel Brill

We will be taking a lunch break, yes.

Carl Paganelli

Yeah, yeah.

Rachel Brill

I just if no one has anything to say right now, we could also take that break and we'll be sitting here. And then I guess around noon we I would say we would take a lunch break and then come back at 1:00. And if you have comments that. You want to share after that. That's great too. We'll be here.

Nick Plurkowski USW Local 5

Is there any more about the rule making process that we can share? I know it was mentioned that there was a truncated rule process but.

Carl Paganelli

It's not truncated. We're just working very quickly on this portion of it. And then the formal rulemaking before the Standards Board is the normal process and I will see if

I can find the Standards Board's description of rulemaking. So, you can understand all the steps that they go through. In a typical process, so and all about opportunities that people have to comment off, see if I can find it and put a link in the chat and then it says it's for health regulations. So, a little bit of it is kind of not applicable.

Who's doing what.

Nick Plurkowski USW Local 5

Thank you.

Carl Paganelli

But the basic it lays out the Administrative Procedure Act steps that the Standards Board has to follow to give everybody opportunity to comment and weigh in.

And so it explains, kind of why it takes a whole year or can take up to a year to get.

Done so.

Rachel Brill

It truncated was a poor choice of word on my part. I was referring to my own personal schedule to get my parts of this done in Lauren's as well. OK, Mr. Rogers.

Norman Rogers USW Local 675

Yeah. Just for clarity, we're not gonna be involving ourselves with the RMP piece.

Carl Paganelli

What's rmp?

Norman Rogers USW Local 675

Risk management.

Carl Paganelli

The oh, they're gonna have the caliper will have their own rulemaking process. We are not involved cause. It's a separate agency and you will be also similarly able when they it's the same process, right.

Norman Rogers USW Local 675

OK.

Carl Paganelli

I mean we ours goes through the Standards Board. They do their own. And they'll put out a notice and then everybody will be able to participate in the usual fashion. So, so, yes. That there and the language is nearly identical. There's a few little tweaks because they are implementing a different law than we are. And we have the Occupational Safety and Health Act, and they have the law that established the R&P program. But basically, the language is the same as makes it always program for. And this regulation was very parallel in the beginning, just so that there's one set. Of rules. Everybody this the refineries have to follow.

So you'll see. But yes, they will.

Norman Rogers USW Local 675

Thank you.

Carl Paganelli

Sure.

Rachel Brill

Mr. Smith.

Michael J. Smith

Thank you. I like I have one more, just to clarify and maybe it's not. Maybe you can't. Or so. This is after this process; I'm assuming there'll be changes that were are being proposed that will be submitted to the Standards Board. The Standards Board. Then the two three options. Right, you could they could reject to continue work. They could accept, or they could reject fully. If they reject this outright, any of these changes, it just reverts back to the current 5189.1 that's in place now. There's nothing that would I remember the original transition to it. It would go away for you know, any, any and all work done. But because the current law is in place, they're only voting on these amended changes and those amended changes can be voted down completely.

Carl Paganelli

Yes, or because its rule making. They could make their own amendments to it, right?

Michael J. Smith

Yeah, yes, yeah.

Carl Paganelli

So it's not set in stone. Right. They.

Michael J. Smith

It's not OK.

Carl Paganelli

I mean if you follow any of the other rulemaking, there's a proposal that starts at the beginning of when they started and then there's comments and they think about it. And there's often many amendments in the rule making process until they get to the end. And they vote on it either to adopt it or reject it. Right? So, there's things that change a lot during rulemaking, right? So, it's just the way it is. Sometimes they'll reject the entire thing. Sometimes they'll adopt it, but it's very often that the starting point and the final regulation are different. It's very common, right? Cause people come up with better ideas as they work through the process.

Rachel Brill

Mr. Plurkowski.

Nick Plurkowski USW Local 5

Yeah. I just. Thanks again for, you know, asking for the recommendations. If we have any language to propose. But again, it's almost impossible to propose a change in language when you don't know the problem that you're trying to fix. So.

January 23rd it looks like. Kind of a far way out, but again, like Mike mentioned at the beginning, without the information about what problems are being fixed. You know, it's hard to. It's hard to fully participate with recommended changes and stuff like that. So, I feel like all we can do is point out the problems that these changes are going to cause, but not be as useful as we could be with proposing changes that might, you know, work for everybody. Thanks for the comment that the Standards Board themselves could make amendments that might make more sense. So there, there is hope and there somewhere. But is there?

Carl Paganelli

The Standards Board is a sibling agency, right? Do you agree with everything your siblings do? So, they. I mean they they're independent of us by law, right? They have a board that's appointed by the governor, and they have their own staff and their own attorneys, and they do what they think. Well, you know they have an obligation to adopt clear and enforceable rules that everybody can understand, and they do. They use their best judgment so.

Nick Plurkowski USW Local 5

Is there a reason that January 23rd is picked? I'm just wondering if we haven't got our information that Mike mentioned earlier. We would still be hamstrung for providing any recommendations or anything, you know. Is there a possibility to postpone that if we still haven't received our information to be effective for proposing changes? If needed.

Rachel Brill

I think, I mean, I think we chose that date because of our internal rule making calendars and what the Standards Board has indicated they would need to see in terms of their rulemaking calendars.

Carl Paganelli

However, if you have subsequent comments, send them in, send them to the Standards Board, send them to us and they'll have them right. So, there's nothing stopping you. We need a deadline so that we can make our package, but it's not speak now or forever hold your peace. This is not a wedding, right? So you know you're gonna have more thoughts. Write them up. And you know, give them to us. Give them to the Standards Board and.

Rachel Brill

Them at the public hearing you'll have, yeah.

Carl Paganelli

Them at the public hearing, go to the Standards Board. Public, you know, they always have public comment period. You guys have been. You were super helpful when you came for the renewable, including renewable refineries. It was very, very powerful to have you there and to have. The wife of Jerome Serrano there that was very powerful. So, you know that that's your opportunity. People come and speak about whatever is they want to at those meetings. So, you're welcome to do that so.

Nick Plurkowski USW Local 5

Thank you.

Carl Paganelli

If it we need February 23rd so that we can get our work done on time January 23rd. But you know it's not the end right so.

Rachel Brill

January, January 23rd please.

Carl Paganelli

There's plenty of time for you to submit comments so.

Rachel Brill

I'm gonna recommend if we don't have any more pressing comments right now, we can just go off camera and go on mute. And if folks wanna say something, I will still be here. Lauren will still be here. Carl will still be here. Just feel free to raise your hands. Does it sound good? OK. Thank you for to everyone who has spoken.

Carl Paganelli

Thank yes. Thank you very much. This has been very helpful and very informative. I really appreciate it, and I know it's a lot of time out of your days, but we really appreciate it.

Rachel Brill

OK. Thanks everyone.

Michael Dossey

Thank you.

Carl Paganelli

For the people who are still here, I'm just about to put in the chat. A link to the Standards Board's explanation of how health standards are adopted.

Nick Plurkowski USW Local 5

Thank you.

Rachel Brill

Hi all it is now 1201. I'm going to say that it's lunchtime. So, this is, I guess, an official break. Feel free to come back at 1:00 and we can carry on discussing the proposed amendments if anybody has comments.

Carl Paganelli

Do you get one?

Rachel Brill

You want one. Hello everyone, who is still hanging in there with us. We are back. Like if this were a deposition, I would say we are back on the record, but we are here to hear any more comments that anyone has on the proposed amendments to section 5189.1.

Alvin Dong, LAFD

I'm impressed with your commitment.

Rachel Brill

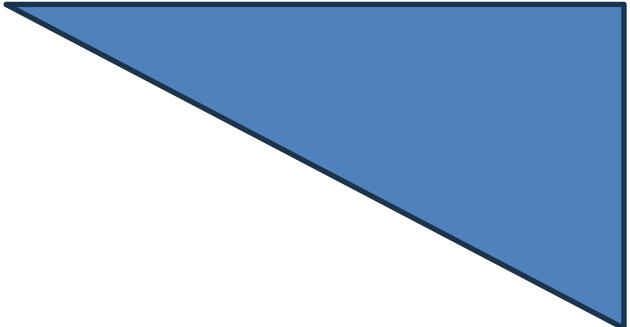
We wanna make sure that everyone has plenty of time to let us know. Their thoughts? Best way to get a good rule making package?

Carl Paganelli

Don't hear any comments. I am gonna go off camera and unmute, but I'll be here the whole time. So, somebody comes in and wants to give us a comment or anybody. Already been here? As for their thoughts, I'm here, but I'm just gonna be on camera for now.

Rachel Brill

I will also.



Occupational Safety and Health Standards Board

Public Hearing

First Aid

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

TITLE 8

CONSTRUCTION SAFETY ORDERS

SECTION 1512

GENERAL INDUSTRY SAFETY ORDERS

SECTION 3400

FIRST AID

HYPERLINKS TO RULEMAKING DOCUMENTS:

NOTICE/INFORMATIVE DIGEST

PROPOSED REGULATORY TEXT

INITIAL STATEMENT OF REASONS

BASIS FOR RULEMAKING

From: Palmer, Matthew@DIR
To: [DIR, OSHSB Rulemaking](#)
Cc: [Estakhri, William@DIR](#)
Subject: First Aid Regulation
Date: Thursday, December 4, 2025 11:25:56 AM
Attachments: [image001.png](#)
[image002.png](#)

Good morning. I would like to submit a comment for the first aid regulation. I work for CALOSHA enforcement in Region 2. We had two cases in our Region in 2024 where employees lives might have been saved if there had been ready access to an EpiPen.

One was a bee sting of an employee at a camp retreat and the other an asthma attack triggered by weedeating in CalTrans worker.

1773284 09/04/2024 asthma – CalTrans worker

1752191 06/03/2024 bee sting – Oakland Feather River Camp, Quincy

We think it would save many lives if employers were required to include EpiPens in their first aid kits.

Also we see many unintentional overdoses in California workers (see chart below). Many of these death could be prevented if there were ready access to Narcan.

We think it would save many lives if employers were required to include Narcan in their first aid kits.

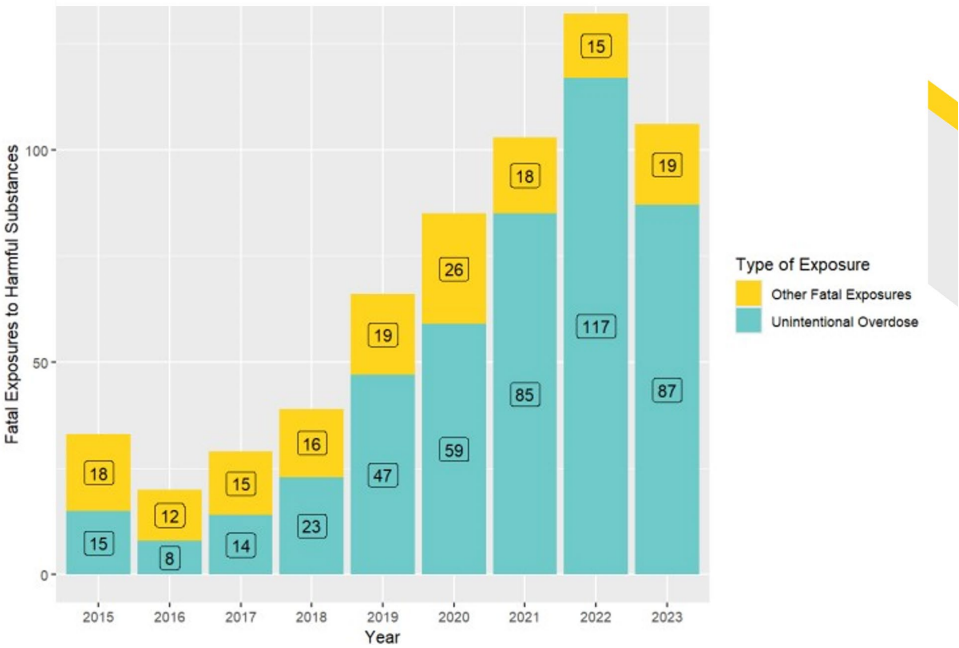
Matt Palmer
Senior Safety Engineer, Region 2 Sacramento
Division of Occupational Safety and Health
Cell (209) 329 4274



Protect and improve the health and safety of working people in California

Work-related Fatal Unintentional Overdoses (2015 -2023)

Source: Fatal Occupational Injuries in California 2013 – 2023. Dept. Of Industrial Relations



From: [Estakhri, William@DIR](mailto:Estakhri,William@DIR)
To: [DIR OSHSB Rulemaking](#)
Subject: First aid kit comment for the new regulation.
Date: Thursday, December 4, 2025 11:58:27 AM

Due to the nature of some work activities , workers are exposed to allergens and insect bites that could be deadly. Having an EpiPen added to the first aid kits are essential to save workers life if their work exposes them to plant allergens and insect bites.

Now that EpiPen can be purchased without a doctor's note and it is available to the companies, the purchase and inclusion of the EpiPen has minimum cost compare to what can happen to a worker that shows allergic reaction to the allergens.

Response time is also essential in treating a worker that has shown symptoms of allergic reaction and could not wait for an emergency service to arrive.

I recommend adding an additional verbiage to section (C)(3) to state the following.

(c) Employers shall evaluate the need for first-aid materials and shall ensure that there are

There shall be adequate quantities and types of first-aid materials, approved by the

consulting physician, readily available for employees on every job. Such materials shall be

kept in a sanitary and usable condition. A frequent inspection shall be made of all first-aid

materials, which shall be replenished as necessary.

(1) All employees shall have ready access to a first-aid kit. The employer shall furnish a sufficient number of first-aid kits to meet this requirement. The location of each first-aid kit

shall be clearly indicated.

(2) The minimum types and quantities of materials in first-aid kits shall either comply with

the requirements of Table 1 of this section, which conforms with the minimum requirements for Class A first-aid kits specified within the American National Standards Institute (ANSI)/International Safety Equipment Association (ISEA) Z308.1-2021 American National Standard for Minimum Requirements for Workplace First-Aid Kits and Supplies, , or shall be determined by an employer-authorized physician or other licensed health care professional (PLHCP), as defined in section 5144.

(3) Based upon its size, the location(s) of employees, and the types of hazards in the workplace, the employer shall evaluate the need for, and shall provide, additional first[1]aid kits and additional types and quantities of first-aid equipment and supplies. When workers could be exposed to allergens from plants or insect bites , the safety kit provided must contain an EpiPen.

CALIFORNIA STANDARDS COMPARISON

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

FEDERAL: 1926.50 – Medical Services and First Aid	STATE: Construction Safety Orders Section 1512	RATIONALE
1926.50 Medical services and first aid.	1512.Emergency Medical Services <u>and First Aid</u>	The addition of “and First Aid” is necessary to more accurately portray the contents of the section. This change is at least as effective as the Federal regulation.
No corresponding Federal provision.	EXCEPTION: Engineering contractors or service providers on a job site not engaged in construction activity (e.g., operation of tools, equipment or machinery directly associated with construction) that are in compliance with the requirements of ~~S~~ section 3400(b) of the General Industry Safety Orders.	This change is necessary because the term “section” is not capitalized throughout the section, except where a specific authority is cited. This revision is at least as effective as the Federal regulation.

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR

SCOPE: Applicable throughout state unless otherwise noted.

1926.50(d)(1) First aid supplies shall be easily accessible when required. 1926.50(d)(2) The contents of the first aid kit shall be placed in a weatherproof container with individual sealed packages for each type of item, and shall be checked by the employer before being sent out on each job and at least weekly on each job to ensure that the expended items are replaced.	(c) First-Aid Kit. (1) Every employer working on or furnishing personnel on a construction project, on line crews and on other short duration or transient jobs shall provide at least one first-aid kit in a weatherproof container. The contents of the first-aid kit shall be <u>checked by the employer before being sent out on each job and at least weekly on each job inspected regularly to ensure that the expended items are promptly replaced.</u> The contents of the first-aid kit shall be arranged to be quickly found and remain sanitary. <u>All employees shall have ready access to a first-aid kit. The location of each first-aid kit shall be clearly indicated.</u> First-aid dressings shall be sterile in individually sealed packages for each item. The minimum <u>types and quantities of materials in first-aid kits first-aid supplies</u> shall be determined by an employer-authorized, ~~licensed~~ physician or other licensed health care professional (PLHCP), as defined in section 5144, or shall meet the <u>requirements of Table 1 of this section, which conforms with the requirements for Class A first-aid kits specified within ANSI/ISEA Z308.1, American National Standard for Minimum Requirements for Workplace First Aid Kits and Supplies, 2021 Edition, hereby incorporated by reference.</u> ~~in accordance with the following Table:~~	These changes are necessary to reduce the time it takes for an injured employee to receive first-aid, and to ensure consistency with the Federal OSHA regulation. The proposal replaces “licensed physician” with “physician or other licensed healthcare professional (PLHCP), as defined in section 5144...” which is used throughout the section in lieu of the terms “physician” or “doctor.” This improves the choices available to employers who seek medical consultation on first-aid kits. As an alternative to consulting with a PLHCP, the proposal allows employers to stock

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

		first-aid kits with the items listed in a revised Table 1, which replaces the existing Table 1. These revisions are at least as effective as the Federal regulation.

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

			Type of Supply Required by Number of Employees			
	<i>Supplies for First Aid</i>					
	~~Dressings and other materials in adequate quantities consisting of:~~	~~1-5~~	~~6-15~~	~~16-200~~	~~over 200~~	
	~~1. Adhesive dressings~~	~~X~~	~~X~~	~~X~~	~~X~~	
	~~2. Adhesive tape rolls, 1 inch wide~~	~~X~~	~~X~~	~~X~~	~~X~~	
	~~3. Eye dressing packet~~	~~X~~	~~X~~	~~X~~	~~X~~	
	~~4. 1 inch gauze bandage roll or compress~~		~~X~~	~~X~~	~~X~~	
	~~5. 2 inch gauze bandage roll or compress~~	~~X~~	~~X~~	~~X~~	~~X~~	
	~~6. 4 inch gauze bandage roll or compress~~		~~X~~	~~X~~	~~X~~	
	~~7. Sterile gauze pads, 2 inch square~~	~~X~~	~~X~~	~~X~~	~~X~~	
	~~8. Sterile gauze pads, 4 inch square~~	~~X~~	~~X~~	~~X~~	~~X~~	
	~~9. Sterile surgical pads suitable for pressure dressings~~			~~X~~	~~X~~	
	~~10. Triangular bandages~~	~~X~~	~~X~~	~~X~~	~~X~~	
	~~11. Safety pins~~	~~X~~	~~X~~	~~X~~	~~X~~	
	~~12. Tweezers and scissors~~	~~X~~	~~X~~	~~X~~	~~X~~	
	~~* Additional equipment in adequate quantities consisting of:~~					
	~~13. Cotton-tipped applicators~~			~~X~~	~~X~~	
	~~14. Forceps~~	~~X~~	~~X~~	~~X~~	~~X~~	
	~~15. Emesis basin~~	~~X~~	~~X~~	~~X~~	~~X~~	
	~~16. Flashlight~~			~~X~~	~~X~~	
	~~17. Magnifying glass~~			~~X~~	~~X~~	
	~~18. Portable oxygen and its breathing equipment~~				~~X~~	
	~~19. Tongue depressors~~				~~X~~	
	~~Appropriate record forms~~	~~X~~	~~X~~	~~X~~	~~X~~	
	~~Up to date 'standard' or 'advanced' first aid textbook, manual or equivalent~~	~~X~~	~~X~~	~~X~~		
					~~X~~	
	~~*To be readily available but not necessarily within the first aid kit.~~					

The proposal eliminates the existing table in section 1512 in its entirety and adds a new Table 1, entitled "ANSI/ISEA Z308.1-2021 Minimum Requirements for Class A First-Aid Kits." Deleting the existing table is necessary to improve clarity and enforceability. The existing table requires different first-aid supplies based on the number of employees on the job. Because the number of workers can change each day on a construction site, this requirement is difficult to implement. The existing list of supplies is also not consistent with modern first-aid practices. Requiring

CALIFORNIA STANDARDS COMPARISON

SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

		employers to make certain first-aid supplies “readily available but not necessarily within the first-aid kit” is unclear and difficult to enforce. Replacing the existing list with the ANSI/ISEA 2021 list facilitates compliance and effectiveness. These first-aid supplies are easily accessible on the market. These changes are at least as effective as the Federal regulation.

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

No corresponding Federal provision.	<u>Table 1: ANSI/ISEA Z308.1-2021 Minimum Requirements for Class A First-Aid Kits</u>		Table 1 replaces the existing table and lists 19 first-aid items and their quantities that will be required in first-aid kits in construction workplaces. This revision is necessary to harmonize the list of first-aid items with those required under the ANSI/ISEA Z308.1-2021 standard for Class A first-aid kits. This will facilitate compliance and enforcement. This revision is more effective than the Federal regulation.
	<u>First Aid Supply (Minimum Size or Volume)</u>	<u>Minimum Quantity</u>	
	<u>Adhesive bandage, 1 x 3 in. (2.5 x 7.5 cm)</u>	<u>16</u>	
	<u>Adhesive tape, 2.5 yd (2.3 m) total</u>	<u>1</u>	
	<u>Antibiotic application, 1/57 oz (0.5 g)</u>	<u>10</u>	
	<u>Antiseptic, 1/57 oz (0.5 g)</u>	<u>10</u>	
	<u>Breathing barrier</u>	<u>1</u>	
	<u>Burn dressing (gel soaked), 4 x 4 in. (10 x 10 cm)</u>	<u>1</u>	
	<u>Burn treatment, 1/32 oz (0.9 g)</u>	<u>10</u>	
	<u>Cold pack*, 4 x 5 in. (10 x 12.5 cm)</u>	<u>1</u>	
	<u>Eye covering w/means of attachment, 2.9 sq. in. (19 sq. cm)</u>	<u>2</u>	
	<u>Eye/skin wash, 1 fluid oz (29.6 ml) total</u>	<u>1</u>	
	<u>First-aid guide**</u>	<u>1</u>	
	<u>Foil blanket, 52 x 84 in. (132 x 213 cm)</u>	<u>1</u>	
	<u>Hand sanitizer, 1/32 oz (0.9 g)</u>	<u>10</u>	
	<u>Medical exam gloves</u>	<u>2 pair</u>	
	<u>Roller bandage, 2 in. x 4 yd (5 cm x 3.66 m)</u>	<u>1</u>	
	<u>Scissors***</u>	<u>1</u>	
	<u>Sterile pad, 3 x 3 in. (7.5 x 7.5 cm)</u>	<u>2</u>	
	<u>Trauma pad, 5 x 9 in. (12.7 x 22.9 cm)</u>	<u>2</u>	
<u>Triangular bandage, 40 x 40 x 56 in. (101 x 101 x 142 cm)</u>	<u>1</u>		

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

No corresponding Federal provision.	<u>* In accordance with ANSI/ISEA Z308.1-2021, each cold pack shall reach a temperature between 20 and 40°F (-6 and 4°C) within 10 seconds of activation and shall maintain this temperature for a period of at least 10 minutes. Cold packs shall activate under normal hand pressure and shall not leak under normal conditions of use.</u>	This footnote is necessary to harmonize the revised Table 1 with the requirements of the ANSI/ISEA Z308.1-2021 standard for Class A first-aid kits. The footnote clarifies that a chemical cold pack is required, rather than a cold pack that must be refrigerated. This revision is more effective than the Federal regulation.

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

No corresponding Federal provision.	<u>** Topics included in the first-aid guide shall consist of those listed in Appendix A of ANSI/ISEA Z308.1-2021.</u>	This footnote establishes a minimum set of topics that must be included in the first-aid guide and that are listed in Appendix A of the ANSI/ISEA standard. This revision is more effective than the Federal regulation.

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

No corresponding Federal provision.	*** <u>In accordance with ANSI/ISEA Z308.1-2021, scissors shall be autoclavable, at least 3.5 in. long (8.9 cm), capable of cutting through clothing, feature a blunt end to protect a person from accidental injury, and of medical professional quality.</u>	This footnote is necessary to harmonize Table 1 with the requirements of the ANSI/ISEA Z308.1-2021 standard. This footnote is necessary to prevent the use of poor-quality, non-medical scissors that can cause additional injuries to an injured employee when used to remove clothing, and that can contain infectious agents if not properly sterilized after use. This revision is more effective than the Federal regulation.

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

No corresponding Federal provision.	~~(2) Other supplies and equipment, when provided, shall be in accordance with the documented recommendations of an employer authorized, licensed physician upon consideration of the extent and type of emergency care to be given based upon the anticipated incidence and nature of injuries and illnesses and availability of transportation to medical care.~~	This sentence is deleted because it conflicts with the requirements of subsection (c)(1), which gives employers the option of consulting with a PLHCP or complying with the new Table 1 list of first-aid supplies. In addition, the proposed revision at subsection (c)(2) requires employers to assess risks and provide additional first-aid kits or supplies accordingly, rather than consulting with a physician about these risks. This change is at least as effective as the Federal regulation.

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

No corresponding Federal provision.	<u>(2) Based upon its size and the types of hazards in the workplace, the employer shall evaluate the need for, and shall provide:</u> <u>(A) Additional first-aid kits; and</u> <u>(B) Additional types or quantities of first-aid equipment and/or supplies.</u>	This addition is necessary to improve employee safety by ensuring that the employer assesses the need for, and provides, additional first-aid kits and additional types and quantities of first-aid equipment and supplies that would be needed to address any unique hazards in the workplace. This revision is more effective than the Federal regulation.

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

No corresponding Federal provision.	<u>NOTE 1 to subsection (c)(2): The minimum list of supplies in Table 1 may not be adequate to address the injuries that may occur in some work environments. For example, where there are exposures to chemical hazards for which specific first-aid treatments are specified on the Safety Data Sheets or otherwise recommended (such as for hydrofluoric acid, phenol solutions and cyanide compounds), provision of first-aid supplies beyond the minimum list in Table 1 and appropriate for such chemical exposures may be necessary to achieve compliance with the requirements of this subsection. Similarly, those places of employment with larger numbers of employees or frequent injuries requiring first-aid treatment may find it necessary to stock larger quantities of materials than the amounts listed in Table 1 for first-aid supplies to be always readily available.</u>	This note is necessary to clarify the employer's responsibility to determine, and provide for, the first-aid needs of employees by evaluating: (1) the size of the workplace and number of employees; (2) the types of hazards in the workplace; and (3) whether employees have "ready access to a first-aid kit." Based on this evaluation, the employer may need to: (1) stock larger quantities of first-aid items than the amounts listed in Table 1, and (2) stock specialized first-aid items to address any unique hazards in the workplace. This revision is more effective than the Federal regulation.

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

No corresponding Federal provision.	<u>NOTE 2 to subsection (c)(2): Employers should be aware that whenever first-aid materials for the treatment of chemical injuries are included in first-aid kits, the requirements of subsection 5194(h)(2)(E) for training on emergency procedures apply.</u>	This note clarifies that under section 5194, employees must be trained in the use of first-aid treatments for chemical injuries if those treatments are included in first-aid kits. This revision is more effective than the Federal regulation.

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

No corresponding Federal provision.	(3) ~~Drugs, antiseptics, eye irrigation solutions,~~ inhalants, medicines, or proprietary preparations shall not be included in first-aid kits unless specifically approved, in writing, by an employer-authorized <u>PLHCP</u> ~~licensed physician~~ .	This change is necessary because, under the proposed changes to section 1512, antiseptics and eye irrigation solutions are included in the required first-aid items listed in Table 1; therefore, by definition, they do not need approval by a PLHCP. “Licensed physician” is removed because the term PLHCP is used throughout the proposed changes to this section, in lieu of “physician” or “doctor.” This revision is more effective than the Federal regulation.

CALIFORNIA STANDARDS COMPARISON

SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

No corresponding Federal provision.	NOTE: The provisions of <u>Section</u> 1512 are not intended to exclude immediate treatment of minor injuries which do not require the services of a <u>PLHCP</u> physician.	Using “PLHCP” in place of “licensed physician” is necessary to be consistent with subsection 1512(c)(1). The term “section” is not capitalized throughout, except where a specific authority is cited.

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

No corresponding Federal provision.	NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, <u>and Section 2440</u> , Labor Code.	Section 2440 of the Labor Code was added, which states that all employers shall comply with standards relating to the ready availability of medical services and first aid adopted by the Occupational Safety and Health Standards Board, pursuant to Chapter 6 (commencing with Section 140) of Division 1. This revision is at least as effective as the Federal regulation.

CALIFORNIA STANDARDS COMPARISON

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

FEDERAL: §1910.151 - Medical services and first aid.	STATE: General Industry Safety Orders Section 3400	RATIONALE
1910 Medical services and first aid.	3400. <u>Emergency</u> Medical Services and First Aid.	This change is necessary to more accurately portray the requirements of the section, which pertain to emergency medical services and first aid, not to “medical services,” a term that includes primary care and other clinical services outside the scope of the section. This change is also the same title proposed for section 1512, which helps employers and employees recognize that these sections pertain to the same topic. This revision is at least as effective as the Federal regulation.

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

1910.151(b) In the absence of an infirmary, clinic, or hospital in near proximity to the workplace which is used for the treatment of all injured employees, a person or persons shall be adequately trained to render first aid. Adequate first aid supplies shall be readily available.	(c) ~~Employers shall evaluate the need for first-aid supplies and shall ensure that there are~~ ~~There shall be adequate quantities and types of first-aid materials, approved by the consulting physician,~~ readily available for employees on every job. Such materials shall be kept in a sanitary and usable condition. A frequent inspection shall be made of all first-aid materials, which shall be replenished as necessary. <u>(1) All employees shall have ready access to a first-aid kit. The employer shall furnish a sufficient number of first-aid kits to meet this requirement. The location of each first-aid kit shall be clearly indicated.</u>	This change is necessary to ensure that the section meets the “ready availability” requirement of the Federal regulation. The change is also necessary to remove the requirement pertaining to the “consulting physician,” which is moved to new subsection (c)(3) of section 3400, and refers to a “physician or other licensed healthcare professional (PLHCP)” in lieu of a physician. This change is necessary to ensure that employers provide adequate quantities and types of first-aid materials, and that they make first-aid kits readily accessible to

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR SCOPE: Applicable throughout state unless otherwise noted.

		employees and clearly indicated, in order to ensure ready access by employees. This subsection is at least as effective as the Federal regulation.
No corresponding Federal Provision.	<u>(2) The minimum types and quantities of materials in first-aid kits shall either comply with the requirements of Table 1 of this section, which conforms with the minimum requirements for Class A first-aid kits specified within ANSI/ISEA Z308.1-2021, American National Standard for Minimum Requirements for Workplace First Aid Kits and Supplies, hereby incorporated by reference, or shall be determined by an employer-authorized physician or other licensed health care professional (PLHCP), as defined in section 5144.</u>	This addition is necessary to specify that the employer can meet the requirements for the stocking of first-aid kits by either complying with Table 1 or by consulting with a PLHCP. This subsection is more effective than the Federal regulation.
No corresponding Federal provision.	<u>(3) Based upon its size and the types of hazards in the workplace, the employer shall evaluate the need for, and shall provide, additional first-aid kits and additional types and quantities of first-aid equipment and supplies.</u>	This addition is necessary to improve employee safety by ensuring that the employer assesses the need

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SOURCE OF FEDERAL OSHA STANDARD(S): 29 CFR

SCOPE: Applicable throughout state unless otherwise noted.

		for, and provides, additional first-aid kits and additional types and quantities of first-aid equipment and supplies that would be needed to address any unique hazards in the workplace. This section is more effective than the Federal regulation.																																
No corresponding Federal provision.	<u>Table 1: ANSI/ISEA Z308.1-2021 Minimum Requirements for Class A First-Aid Kits</u> <table><tr><th><u>First Aid Supply (Minimum Size or Volume)</u></th><th><u>Minimum Quantity</u></th></tr><tr><td><u>Adhesive bandage, 1 x 3 in. (2.5 x 7.5 cm)</u></td><td><u>16</u></td></tr><tr><td><u>Adhesive tape, 2.5 yd (2.3 m) total</u></td><td><u>1</u></td></tr><tr><td><u>Antibiotic application, 1/57 oz (0.5 g)</u></td><td><u>10</u></td></tr><tr><td><u>Antiseptic, 1/57 oz (0.5 g)</u></td><td><u>10</u></td></tr><tr><td><u>Breathing barrier</u></td><td><u>1</u></td></tr><tr><td><u>Burn dressing (gel soaked), 4 x 4 in. (10 x 10 cm)</u></td><td><u>1</u></td></tr><tr><td><u>Burn treatment, 1/32 oz (0.9 g)</u></td><td><u>10</u></td></tr><tr><td><u>Cold pack*, 4 x 5 in. (10 x 12.5 cm)</u></td><td><u>1</u></td></tr><tr><td><u>Eye covering w/means of attachment, 2.9 sq. in. (19 sq. cm)</u></td><td><u>2</u></td></tr><tr><td><u>Eye/skin wash, 1 fluid oz (29.6 ml) total</u></td><td><u>1</u></td></tr><tr><td><u>First-aid guide**</u></td><td><u>1</u></td></tr><tr><td><u>Foil blanket, 52 x 84 in. (132 x 213 cm)</u></td><td><u>1</u></td></tr><tr><td><u>Hand sanitizer, 1/32 oz (0.9 g)</u></td><td><u>10</u></td></tr><tr><td><u>Medical exam gloves</u></td><td><u>2 pair</u></td></tr><tr><td><u>Roller bandage, 2 in. x 4 yd (5 cm x 3.66 m)</u></td><td><u>1</u></td></tr></table>	<u>First Aid Supply (Minimum Size or Volume)</u>	<u>Minimum Quantity</u>	<u>Adhesive bandage, 1 x 3 in. (2.5 x 7.5 cm)</u>	<u>16</u>	<u>Adhesive tape, 2.5 yd (2.3 m) total</u>	<u>1</u>	<u>Antibiotic application, 1/57 oz (0.5 g)</u>	<u>10</u>	<u>Antiseptic, 1/57 oz (0.5 g)</u>	<u>10</u>	<u>Breathing barrier</u>	<u>1</u>	<u>Burn dressing (gel soaked), 4 x 4 in. (10 x 10 cm)</u>	<u>1</u>	<u>Burn treatment, 1/32 oz (0.9 g)</u>	<u>10</u>	<u>Cold pack*, 4 x 5 in. (10 x 12.5 cm)</u>	<u>1</u>	<u>Eye covering w/means of attachment, 2.9 sq. in. (19 sq. cm)</u>	<u>2</u>	<u>Eye/skin wash, 1 fluid oz (29.6 ml) total</u>	<u>1</u>	<u>First-aid guide**</u>	<u>1</u>	<u>Foil blanket, 52 x 84 in. (132 x 213 cm)</u>	<u>1</u>	<u>Hand sanitizer, 1/32 oz (0.9 g)</u>	<u>10</u>	<u>Medical exam gloves</u>	<u>2 pair</u>	<u>Roller bandage, 2 in. x 4 yd (5 cm x 3.66 m)</u>	<u>1</u>	The addition of this list is necessary to harmonize section 3400 with the requirements of the ANSI/ISEA Z308.1-2021 standard. This list reflects modern first-aid practices and supplies. This section is more effective than the Federal regulation, which includes an Appendix A that recommends, but does not require,
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	<table><tr><td><u>Scissors**</u></td><td><u>1</u></td></tr><tr><td><u>Sterile pad, 3 x 3 in. (7.5 x 7.5 cm)</u></td><td><u>2</u></td></tr><tr><td><u>Trauma pad, 5 x 9 in. (12.7 x 22.9 cm)</u></td><td><u>2</u></td></tr><tr><td><u>Triangular bandage, 40 x 40 x 56 in. (101 x 101 x 142 cm)</u></td><td><u>1</u></td></tr></table>	<u>Scissors**</u>	<u>1</u>	<u>Sterile pad, 3 x 3 in. (7.5 x 7.5 cm)</u>	<u>2</u>	<u>Trauma pad, 5 x 9 in. (12.7 x 22.9 cm)</u>	<u>2</u>	<u>Triangular bandage, 40 x 40 x 56 in. (101 x 101 x 142 cm)</u>	<u>1</u>	that employers provide first-aid kits that meet the American National Standard (ANSI) Z308.1-1998 "Minimum Requirements for Workplace First-aid Kits."
<u>Scissors**</u>	<u>1</u>									
<u>Sterile pad, 3 x 3 in. (7.5 x 7.5 cm)</u>	<u>2</u>									
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No corresponding Federal provision.	<u>* In accordance with ANSI/ISEA Z308.1-2021, each cold pack shall reach a temperature between 20 and 40°F (-6 and 4°C) within 10 seconds of activation and shall maintain this temperature for a period of at least 10 minutes. Cold packs shall activate under normal hand pressure and shall not leak under normal conditions of use.</u>	This footnote is necessary to harmonize Table 1 with the requirements of the ANSI/ISEA Z308.1-2021 standard. The footnote clarifies that a chemical cold pack is required, rather than a cold pack that must be refrigerated. This revision is more effective than the Federal regulation.								
No corresponding Federal provision.	<u>** Topics included in the first-aid guide shall consist of those listed in Appendix A of ANSI/ISEA Z308.1-2021.</u>	This footnote establishes a								

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		minimum set of topics that must be included in the first-aid guide and that are listed in Appendix A of the ANSI/ISEA standard. This revision is more effective than the Federal regulation.
No corresponding Federal provision.	<u>*** In accordance with ANSI/ISEA Z308.1-2021, scissors shall be autoclavable, at least 3.5 in. long (8.9 cm), capable of cutting through clothing, feature a blunt end to protect a person from accidental injury, and of medical professional quality.</u>	This footnote is necessary to harmonize Table 1 with the requirements of the ANSI/ISEA Z308.1-2021 standard. This footnote is necessary to prevent the use of poor-quality, non-medical scissors that can cause additional injuries to an injured employee when used to remove clothing, and that can contain

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		infectious agents if not properly sterilized after use. This revision is more effective than the Federal regulation.
No corresponding Federal provision.	<u>NOTE 1 to subsection (c)(3): The minimum list of supplies in Table 1 may not be adequate to address the injuries that may occur in some work environments. For example, where there are exposures to chemical hazards for which specific first-aid treatments are specified on the Safety Data Sheets or otherwise recommended (such as for hydrofluoric acid, phenol solutions and cyanide compounds), provision of first-aid supplies beyond the minimum list in Table 1 and appropriate for such chemical exposures may be necessary to achieve compliance with the requirements of subsection (c). Similarly, those places of employment with larger numbers of employees or frequent injuries requiring first-aid treatment may find it necessary to stock larger quantities of materials than the amounts listed in Table 1 for first-aid supplies to be always readily available.</u>	This note is necessary to clarify the employer's responsibility under subsection (c) to determine, and provide for, the first-aid needs of employees by evaluating (1) the size of the workplace and number of employees; (2) the types of hazards in the workplace; and (3) whether first-aid supplies are "readily available" and employees have "ready access to a first-aid kit." This revision is more effective than

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		the Federal regulation.
No corresponding Federal provision.	NOTE 2 to subsection (c)(3): Employers should be aware that whenever first-aid materials for the <u>treatment of chemical injuries are included in first-aid kits, the requirement of subsection 5194(h)(2)(E) for training on emergency procedures apply.</u>	This addition is necessary to clarify that under section 5194, employees must be trained in the use of first-aid treatments for chemical injuries if those treatments are included in first-aid kits. This section is more effective than the Federal regulation.
No corresponding Federal provision.	(f)(1) A communication system for contacting a ~~doctor~~ <u>PLHCP</u> or emergency medical service, such as access to 911 or equivalent telephone system. The communication system or employees using the system shall have the ability to direct emergency services to the location of the injured or ill employee.	This change is necessary because “PLHCP” is used throughout the proposed changes to section 3400 in lieu of “physician” or “doctor.” This revision is at least as effective as the Federal regulation.
	NOTE: Medical services and first aid provisions for electrical workers shall also comply with ~~S~~ <u>sections</u> 2320.10 (Low-Voltage) and 2940.10 (High-Voltage) as applicable.	This change is necessary because the term “section”

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		is not capitalized throughout, except where a specific authority is cited. This change is at least as effective as the Federal regulation.
	NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, <u>and Section 2440</u> , Labor Code.	Section 2440 of the LC was added, which states that all employers shall comply with standards relating to the ready availability of medical services and first aid adopted by the Occupational Safety and Health Standards Board, pursuant to Chapter 6 (commencing with Section 140) of Division 1. This revision is at least as effective as the Federal regulation.

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FIRST AID

ADVISORY COMMITTEE

NOVEMBER 3, 2006

MEETING MINUTES

①

Sign in Sheet: First Aid Advisory Committee Meeting 11/3/06

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FIRST AID
ADVISORY COMMITTEE
JUNE 29, 2011

MEETING MINUTES

First Aid Advisory meeting June 29, 2011, Room 12, Elihu Harris State Building, Oakland

NAME	Affiliation
Attending in Person:	
Eric Rosance	Phylmar Regulatory Roundtable
Mary Kochie	Cal/OSHA Medical Unit
Kate Smiley	Associated General Contractors
Dr. Bob Harrison	University of California San Francisco/Center for Occ & Env Health
Bob Barish	Cal/OSHA Research and Standards Unit
Bob Nakamura	Cal/OSHA Research and Standards Unit
Mike Horowitz	Cal/OSHA Research and Standards Unit/Moderator
Sean Gillis	EMS Training Officer, Oakland Fire Department
Dr. Linda Morse	Kaiser, San Francisco
Kriste L. Crane	CA State Association of Occupational Health Nurses/JDS Uniphase
Roger C. Delight	Volunteer, County of Sacramento/Elk Grove CERT
Bruce Wick	CA Association of Professional Specialty Contractors/CALPASC
Wendy Holt	Contract Services Administration Trust Fund/CSATF
Ed Calderon	Shea Homes
Steve Johnson	Associated Roofing Contractors
Carol Baracke	Bickmore Risk Control Services
James Mason	Occupational Health and Safety Officer, City of Berkeley
Dr. Dennis Shusterman	Hazard Evaluation System and Information Service/HESIS-CDPH
Taylor Crawford	Student
Attending by Phone:	
Richard Warner	Mercer/ORC Networks
Mary Jean Ryan	CA State Association of Occupational Health Nurses
Cindy Sato	Construction Employers Association
Kendon Dressel, DC	Nibbi Brothers General Contractors
Steve Selig	Cal/OSHA Consultation, Santa Fe Springs
Mike Manieri	Cal/OSHA Standards Board
Jay Weir	Pacific Bell Area Safety Manager
Cheryl Lepley	CA Emergency Medical Services Authority
Cassie Hilaski	Clark Construction
Alan Schuman	Citizen interested in first aid issues, past petitioner

Mike Horowitz started the meeting at 10, checked with people who called in; self-introductions. Mike thanked participants for being involved and for those who had submitted comments on the “food for thought” questions prior to the meeting.

The meeting then started off with the below multiple choice “pop quiz.”

Under current Cal/OSHA first aid regulations, the following is responsible for the adequacy of first aid kit contents:

- a) The consulting physician
- b) The employer
- c) The employees

d) All of the above

The correct answer is (b), the employer, but less than half of those present raised their hands for the correct choice. Horowitz reminded the meeting that, for Cal/OSHA, the employer always has the ultimate responsibility and can be cited.

Horowitz then reviewed the history of the Federal and Cal/OSHA first aid standards. California has always had the consulting physician requirement, while Federal OSHA removed this requirement in 1998. However, Federal OSHA says in its interpretative letters and non-mandatory appendix to 29 CFR 1910.151 that employers may need to consult experts “from the local fire/rescue department, appropriate medical professional, or local emergency room” about first aid kit contents beyond the minimum. At one time, Cal/OSHA had the specific requirements for certain industrial chemicals, e.g. HF and cyanide, but removed them because of the consulting physician input that was supposed to take care of that.

Horowitz mentioned handouts available on a table: petition #519, selected written comments received prior to the meeting; firefighter exposure to cyanide vapors in smoke; 1996 Cal/OSHA memo on consulting physician and prescription drugs in first aid kits; newer first aid methods for cyanide exposure; HF exposure first aid treatment table from Honeywell, minimum kit content list from ANSI, copies of 8 CCR 3400 and 1512 (c); first aid code sections cited in 2005; 8CCR 14300.7 defining list of what is first aid for purposes of record keeping.

Horowitz initiated the discussion by asking what had been the experience of participants in dealing with the consulting physician.

Linda Morse: most small employers are unaware of consulting physician requirement or of most of the other details of the requirements of 3400. The consulting physician requirement is also unnecessary, since the workers compensation definition of first aid is basically what Grandma can do. Minor things like ace wraps and Band-Aids are done with the first aid kit; for more severe injuries the employee should be taken to the clinic or EMS called to the scene. The first aid kit should have disposable gloves. Using the ANSI list makes sense, and every 3 months the kit should be checked to ensure all the required supplies are still there. Employers with special chemical hazards should be required to use physician input, but otherwise keep it simple.

Horowitz asked if the minimal ANSI-specified contents were, in people’s opinion, also adequate for the construction industry.

Morse said one difference was a physically more substantial first aid cabinet was necessary for the construction environment.

Steve Seligman: I’ve found that many small construction employers at most have the identical physician letter of approval (provided by a certain first aid kit purveyor) that has been photocopied over and over again. Instead of requiring a medical doctor’s input, it would be sufficient for the first aid regulation to require input from any licensed health care professional (PLHCP). I question whether other first aid

materials like antidotes are desirable because in an emergency they might be expired and unusable. Keeping antidotes within their expiration dates can be both time consuming and expensive, so time critical things need to be somehow available.

Bruce Wick: There is a tie in here to heat illness. With the refocus provided by 8CCR 3395 on provision of first aid and medical care, there is much greater opportunity to get EMS on site faster, even in fairly remote areas. So employers don't want to be required to do anything complicated regarding first aid measures.

Mary Kochie: I started with DOSH in 1980. Most doctors were community and local; nurses or doctors in plants, they used to walk around the place and know what was there. Clinics hardly ever do that except for very large employers. Recently in what I've seen in the compliance experience is vendors of the supplies provide photocopy sheet with signature of a doctor. There is only compliance with letter of the law.

Horowitz: two people now have mentioned the mimeographed letter. I looked into the qualifications of one such doctor who is signatory to such a letter: the person is licensed in CA but lives in Georgia. In the ANSI standard, they state it is expected that kits would be supplemented by recommendations of someone first aid competent and familiar with workplace unique first aid needs

Sean Gillis: Most small and middle size businesses won't have the antidote for their specialized first aid needs, like for cyanide. Local EMT/paramedic responders probably wouldn't either; it is still unlikely that the EMS will have the right stuff for cyanide; it is unlikely that they would have most specific agents. Employers might have their own, it more likely that NASA or other large employers with their own medical and/or fire department would have physician on staff, and the right supplies.

Kevin Bland: One of the issues is that there is a divergence of unique employment situations as opposed to the majority of employers for whom the ANSI list is adequate and consistent with the original intent of 8CCR 3400.. The standard was probably written when there was less information available, so the need for physician approval has perhaps past. But the employers with specific problems could be addressed through the IIPP. Also, ANSI does not say to talk to doctor, but rather a first aid competent person with familiarity with the first aid needs of that workplace. ANSI is probably best for the vast majority--most employers who do not need a more specialized list. We should not expand the list to include all special industry needs.

Horowitz wanted Kevin Bland to clarify: if you look at the ANSI table and the 1512 table, there is a difference.

Bland said most of the kits may be modeled after either the ANSI list or the OSHA 1512 requirements. ANSI and 1512 are not the same on numbers and types of supplies. It would be nice to have uniformity of the regulations and expectations; it would be better to go with ANSI.

Steve Johnson: Employers want clarity and do not want to be cited for trivial violations of not having the same numbers and types of bandages as the 1512 list. For instance, having just a letter and aspirin might get them cited. They want to have a minimum specified and augment with recommended supplies, not opposed to use of ANSI list, just need to have more consistency about what is needed. If most

employers are using the ANSI kits and it is sufficient, then why not make that the requirement and the basis of citations?

Jim Mason: I agree with Steve Johnson. I have found that small industries have a problem figuring out what they need, the larger employers are more familiar with the regulations and have the resources to get help. Small businesses would benefit from a clear definition of small business first aid kit requirements.

Bob Harrison: It sounds like the start of consensus emerging that there should be a minimum list like the ANSI, with the option to increase as needed, according to expertise for specific hazards, and a third subset for specific hazards that should also be set up, with oversight to be PLHCP or other first aid authority. For antidotes for chemicals, an MD should be required for that, not just a PHLCP because I would be concerned about the proper use of antidotes. The first two levels could be non-medical doctor. Are there any antidotes that need prescriptions to even buy off the shelf? For example, does calcium gluconate require a prescription?

Horowitz asked people in attendance, receiving some general comments that there are several things that are not readily available without prescription.

Roger Delight: Anytime you give someone something to take, it is practicing medicine.

Horowitz said that he wants to go over that issue later. One handout is from Art Sapper which points out the confusion about the issue of what constitutes first aid; this confusion is due in part to how Fed OSHA has defined first aid in a more restrictive way than it is popularly perceived. The ANSI list actually has things on it that are related to practices not on the OSHA list of first aid procedures. So we have to consider that issue. For example, gloves that ANSI requires are not on the 1512 supplies list, and are considered personal protective equipment in the Federal OSHA scheme

Roger Delight added that some first aid measures can be dealt with by protocol but some serious first aid procedures like giving antidotes need special training and maintenance to apply.

Johnson: There seems to be two separate things, general industry and construction. Construction is required to have a first aid trained person on-site, and Red Cross training says wear gloves, so I would support overlaying the ANSI list on the current 1512 list.

Bruce Wick stated he supported some previous comments by Bob Harrison and Mary Kochie, for example, acknowledging that the construction standard requires MD approval. The way first aid kits are sold undermines the credibility of the standard, and Cal/OSHA. I proposes use of the ANSI table so smaller employers can have a list, and the larger employer can rely on the MD for a more specialized approach. It appears there's a consensus on that general concept. I want to deal with the prohibitions, but first get foundation established.

Kate Smiley agrees with Bruce Wick and Steve Johnson on the ANSI list or MD option; I think there is consensus for that part of it.

Horowitz noted that this is not a total democracy but wants to clarify about the 1512 list, is there really consensus for construction about the ANSI list, asks the medical people what they believe should be in

there. For example, the ANSI list does not require tweezers or scissors... are these needed in construction?

Johnson: You don't need scissors to get the clothes off.
Morse stated she supported the use of the ANSI list for 1512.

Bob Barish proposed having a separate appendix for construction to suggest additional possible materials that are non-mandatory, and stated that the flashlight on the 1512 list seems unnecessary.

Wick added that they are concerned about having any medications or prescription materials, but a flashlight is okay...

Horowitz asked if construction people can go to supplier to customize their first aid kits, and should there be a non-mandatory appendix.

Wick said the problem with the appendix idea is that the small employer needs a simple list, and it should not need to be different from the general industry list.

Horowitz said he would be more comfortable with having guidance for additional possible materials, just as Fed OSHA says for small offices the ANSI list is okay to start but that employers must evaluate specific hazards present and consider the resulting possible additions to the first aid kit that might be necessary. Federal OSHA says in their guidance that during an inspection they will also evaluate the first aid kit contents to see if it is really adequate. Horowitz also noted that the quantity of materials that would be in the construction first aid kit has not been addressed. Horowitz said he wants to get participants to review these considerations.

Ed Calderon: At large home construction sites, all the subs may not have kits, although we do, as the General. I really wouldn't want one employee taking a splinter out of the eye of another. He worked at Chevron, and they had antidotes, but there was a fire department and a nurse on site all the time, which is not the case with construction.

Horowitz asked him if he has to review contents of the kit, would you want sterile saline.

Calderon: No, you might flush eye with tap water, but you'd send them out if it doesn't come right out.

Johnson: Looking at the 1512 list, gives an example of why he doesn't like it. If he has crew of 15, but if he adds one guy, he has to add four items that he doesn't need if he simply kept the crew to a size of 15.

Morse said that the additional items are not needed.

Sean Gillis: As far as what makes sense at a construction site, for example, having the supplies necessary to treat a sucking chest wound.

A discussion ensues: Gillis does training with treatment for sucking chest wound, and this type of thing would be very helpful for the injured. Benadryl may also be life saving for anaphylactic reaction. Johnson noted that treating sucking chest wounds crosses over into emergency medical treatment and that these procedures are not addressed in standard Red Cross first aid training. Gillis says having the

equipment necessary to treat sucking chest wounds would not be that complicated; it is key to have basic items for serious problems. For instance, Gillis has changed his mind about having aspirin to treat for heart attack symptom—this is now a standard recommendation for emergency cardiac situations. Similarly, benadryl works well for anaphylactic shock.

Horowitz reads from one of the handouts “What is First Aid?” according to OSHA in the recordkeeping standard, 8 CCR 14300.7: non-prescription med at non-prescription strength; administering tetanus vaccinations; cleaning wounds, using wound coverings; using hot/cold therapy; using non rigid supports; using temporary immobilization devices; drilling of fingernails or toenails to relieve pressure; eye patch use, irrigation of eye or use of swab to remove foreign bodies from the eye; removing splinters from areas other than the eye with tweezers or other means; using finger guards, using massage; drinking fluids for heat stress.

Mike Manieri asked about the disconnect of this list from the usual first aid definition. He thought at first that it should be consistent with training given in first aid class. But this has changed over time, for example AED wasn’t taught in classes a few years ago but it is. Maybe what first aid is is defined in the context of the training received. Also what qualifies as a drug? Manieri also sent in written comments.

Johnson thought there is a difference between field first aid, and industrial or Red Cross first aid; like no training for sucking wound treatment in Red Cross first aid, but perhaps in clinical first aid training.

Mason sees a difference between clinical first aid and field first aid. What we are talking about is field first aid, NOT clinical first aid.

Horowitz noted that the recordkeeping standard is intended to limit what has to be recorded as injuries on the 300 log. Cal/OSHA wants each employer to assess likely injuries in their workplace and prepare for them appropriately with training and supplies. Employers should have materials and treatment appropriate for their workplace. Noting that 1512 was titled “Emergency Medical Services”, not “First Aid,” Horowitz stated that anything beyond the OSHA list should be considered emergency medical services. So, things like cyanide should be pulled out of that list. Manieri agreed.

Horowitz asked Wendy Holt about the input of consulting physicians in the film and theater industries.

Holt said there are EMTs, who have oversight by physicians, who are on-site, on the set. For example, the EMTs might consult with the physicians about special burn treatments.

Horowitz said that 3400 doesn’t *explicitly* require the employer to evaluate first aid kit contents needs.

Holt replied that she starts from the IIPP hazard evaluation requirement, to have preparations for emergencies like air crashes. Some of the smaller employers would like to have lists, like the construction list; even though it is outdated, it provides guidance. There are some items on the current construction list that might not be necessary.

Horowitz responded that as bigger employers, you have sophistication on using an IIPP approach that smaller employers may not have.

Holt stated her industry would love to have a standard list for compliance like the ANSI list, a minimum list with possible additional materials appropriately required.

Horowitz asked for thoughts about things that should be added beyond the general office list. For example a current Cal/OSHA investigation of small company manufacturing electric cigarettes containing liquid nicotine raises the question whether that employer should stock supplies to counter possible nicotine overdose.

Cassie Hilaski (Clark Construction) asked if a doctor visits the site to go over a non-standard first aid supply list and, like in our case, they have paramedic on site all the time, can the doctor just review the paramedic's list or do they have to go on the site to make the assessment....

Horowitz noted he had provided an internal Cal/OSHA interpretation memo from former Deputy Chief of Health Frank Ciafalo about these requirements; there is no documentation requirement in 8CCR 3400, so how physician approval is to be memorialized is not specified for General Industry. But for construction (8CCR 1512), written approval from the physician is required for additions to the list in the Table, and especially for prescription or non-prescription drugs

Cassie Hilaski: I concur with a physician or someone competent in first aid making the determination. Seems there is hang-up about emergency medical services. A person (attending to an injured employee) is going to worry about what to do until the EMS gets there. It's not good to go by specific recordable first aid categories and actions; we need to allow for the desire to provide assistance.

Sean Gillis: First aid rules should focus on life-saving care, and not so much on getting splinters out. It is a considerate thing to have guidance about splinter removal, but Cassie Hilaski has raised the issue of "time- to- treatment," for example there is revival of the acceptance of tourniquets to stanch severe bleeding. So it is smart important to address "time-to treatment" for serious situations rather than focus on minor first aid. In the case of heart attacks, things like providing aspirin can be helpful in bridging the time-to-treatment gap.

Roger Delight: My picture of first aid in construction is 20-30 trucks rolling around with kits in them subject to heat and other spoilage. Maybe there should be a central one.

Ed Calderon agreed, stating that on his company's project the general contractor does maintain a central first aid kit even if subcontractors have their own kits.

Bob Harrison agreed that there should be some lifesaving items required, but there has to be training on how to use it effectively. For example, aspirin will not be recognized by everyone as something to utilize for a heart attack, so people need to know how to use it. The same for a tourniquet.

Ed Calderon said there should be an option, not a requirement to have everything possible in the kit for "time-of-treatment" interventions.

Bruce Wick acknowledged that construction is a hazardous industry, but in the last two decades, with new communication devices, the emphasis has increasingly become to get the person to emergency medical care or EMS as soon as possible. So the first aid kit should focus on what the first aid trained people have been trained to do with the rest of the focus on assuring fast 911 response. Also need to

have the procedures for injured to get access to care, or vice versa. There is a need to say how the first aid trained people can do some additional augmented potential life-saving items that they could be trained on, but that is beyond the first aid requirement. All kits should not be that different from each other.

Christy Crane: I wanted to go back to Bruce's suggestion to use the ANSI list to substitute for the list in 1512. The regulation should also have a non-mandatory list for higher hazard and remote locations and a non-mandatory list with aspirin and similar treatments.

Steve Johnson added that the mandatory and non-mandatory lists should be clearly presented in the regulation, with the non-mandatory list right below the mandatory list.

Carol Baracke concurred. I do lots of work with public agencies and mobile work crews who have first aid kits that include things for coverage of regional emergency preparedness as well as for regular first aid. Critical public operations would require more items and more complex kits with more things, and it is important to offer options to be multi-functional. Then the employer has more leeway and options to deal with emergencies. Baracke said there should be a clear core list and guidance for other specific industries.

Bob Barish noted that such non-mandatory more critical supplies are something that go towards meeting the Injury and Illness Prevention Plan expectations and mandate to assess hazards and prepare to respond to them. He suggested having a semi-mandatory recommendation to tie in first aid needs with the problems identified through the IIPP.

Horowitz noted that some of these critical supplies are like the contents of earthquake kits.

Kriste Crane said another example of linkage similar to Bob Barish's suggestion would be to require employers to follow the MSDS-listed first aid recommendations to decide on contents.

Horowitz noted that some MSDS first aid recommendations are not very accurately or specifically prepared.

Carol Baracke noted that following MSDS guidelines is required by the emergency action plan. Other commenters agreed that the Hazard Communication regulation requires attention to MSDS first aid recommendations.

Horowitz wanted to go over the physician approval of prescription vs. non-prescription items, like anti-burn gel, and whether any such items should receive blanket approval in a revised regulation.

Jay Weir said that at Pacific Bell, all of their first aid kits are approved by physicians.

Sean Gillis wanted to submit the list from Oakland's Emergency Medical Dispatch which is a diagnostic tool for 911 responders, an algorithm utilized to suggest pre-EMS arrival treatment. For example, aspirin for heart attack and benadryl for an allergic reaction.

Horowitz asked about the epi-pen.

Wendy Holt noted that epi-pens require prescriptions.

Steve Seligman noted in regard to the flashlight included in the 1512 list that flashlights are important for work at night—not always in regard to first aid but they can be important for safety as during egress from a building during an emergency such as a fire or earthquake when you can't otherwise see. In his Cal/OSHA work, Seligman often cites the 8CCR 3215 Means of Egress requirement for a safe means of egress if flashlights are not available.. It's good to have performance issue like this where it is necessary to evaluate tools that will be used. Seligman opined that it may necessary for some places of employment to have cyanide treatment kits, and if they did this would require additional training for; employees. If there are injectables in such a cyanide kit, 8CCR 5193 (Bloodborne Pathogens regulation) might apply. Which brings to mind, even giving someone a band aid from the first aid kit in the lunchroom could be an item needing to be addressed under 5193.

Dennis Shusterman asked about the cyanide treatment, recalling that in the K&L Plating cyanide fatality in Oakland in 1993 the victims were pulled out of the confined space and doused with water but didn't one didn't revive; not having CPR was the issue. This need to have CPR trained individuals may be a special case for places of employment with cyanide exposure potential—at least CPR must be available for cyanide victims until EMS arrive. Shusterman recalled that amyl nitrite used to be a Title 8 requirement for workplaces with cyanide exposure, but he wanted to ask if the reason the requirement was removed was due to the potential for the amyl nitrite to be utilized as a recreational drug.

Horowitz stated that while recreational usage might have been a factor, the official reason the requirement was removed was because it was considered duplicative of the consulting physician requirement. He noted that emergency treatments for cyanide like amyl nitrite and calcium gluconate for hydrofluoric acid exposures would have to be discussed separately from first aid kit contents, as these should not properly be termed first aid supplies per se, but were in fact better viewed as pre-hospital treatments. Horowitz asked if it wasn't true that some of the current treatments for cyanide exposure need an intravenous administration and so therefore would require much more training.

Sean Gillis noted that sodium thiosulfate, one of the cyanide antidotes, is carried by Alameda County ambulances, but it is an IV procedure and it is hard to administer. On the other hand, an employer could maintain restricted access to amyl nitrite, which does not require substantial training in order to administer.

Horowitz noted that in 2006, after approval by the FDA of the hydroxocobalamin cyanide antidote kits, many firefighting authorities wanted it because they were being exposed to cyanide during overhaul as well as were fire victims trapped in the fire. So fire fighters were pushing for it because it was very effective and had fewer adverse effects than other cyanide antidotes.

Sean Gillis said hydroxocobalamin is a treatment for smoke inhalation but it is not easy to administer, so most fire department ambulances don't carry it.

Horowitz asked who approves Emergency Medical Services Authority (EMSA) list of materials to be carried by ambulances.

Sean Gillis noted that there are scope of practice issues county by county that influence what the Local EMSA puts on the mandatory ambulance equipment list.

Cheryl Lepley of California State EMSA said Local EMSAs set the list for their counties. Gillis added that even though acquiring a physician signature for specific medications may be burdensome to some counties, there can be a need to have the review.

Horowitz asked if Local EMSAs will review with employers in their county the specific pre-hospitalization medical needs that an employer might need to stock so as to be available to an ambulance responding to an emergency.

Cheryl Lepley said some Local EMSAs will do that, or example where employers have specific needs, or if individuals at a worksite have specific individual needs, and the paramedics who will respond need to know how to administer a particular medicine for that individual or worksite need.

Horowitz asked about snake bite antidotes as part of ambulance supplies.

Lepley said yes, some ambulances carry them in regions where snake bites are common.

Horowitz asked the group if they have heard of a multi venom treatment administered by injection; no one had.

Kate Smiley related how AGC members who do wind turbine work have to account for presence of snakes; they have to decide in advance how to deal with the snake hazard. We need to refer back to what employers should do; we need a baseline in the regulation.

Horowitz asked if the AGC employers stock the anti-venom in their first aid kits. Smiley said no, these employers would make arrangements with 911 responders to carry the anti-venom.

Horowitz asked if there was any more discussion about grandfathering certain antidotes or about OTC drugs.

Mary Kochie asked about the current first aid training course given by Red Cross, whether or not it covered burn salves. Steve Johnson replied that no, the Red Cross training does not cover this topic. So, Mary asked, why are burn salves in the first aid kit when for 20 years Red Cross has recommended the use of cool water as treatment for burns.. It was my understanding that such burn salves were not recommended for first aid treatment because the salve can hold the heat in.

Mike noted that it was the ANSI 308.1 standard that includes burn salve, not Red Cross training.

Bruce Wick said that the kit should reflect what people are trained to do, and Red Cross training should be the controlling factor.

Mary Jean Ryan stated that she concurred that there shouldn't be any medications in the kit. Mike mentioned antiseptics, etc. These are not needed for immediate first aid; if you allow them you get into allergy and other liability issues. The existence of medications in the kit suggests the employer's first aid trained individual is a medical provider. If a specific workplace has a chemical requiring an antidote, then this should be permitted with doctor consultation.

Horowitz said this statement makes sense, but he has been hearing for years that employers want to buy the ANSI kit, not get things piecemeal.

Mary Jean Ryan said that ANSI kit is the lesser of two evils, most of the treatment materials will not harm people. It was probably OK if the ANSI standard lists a first aid product, but she still believes it's best not to have any medication whatsoever in the kit. One can have problems with allergies and sensitivities. In regard to first aid, we just want to do the basics. If anything else goes into the kit, then this expands what first aid person will try to do.

Bob Harrison said we should review the ANSI list, and if we'll find that it is probably 80% OK but could probably use a little tweak...So would adding a few additional requirements be a problem?

Bruce said probably not, employers could just pull things out. But for materials additional to those on the ANSI list, there could be a problem. It depends on what the first aid training conflict might be, if anything were added to the kit. Most employers want to do the minimum.

Bob Harrison said to make this discussion more concrete so what about adding tweezers or a tourniquet?

Wendy Holt said the boxes that first aid kits are sold in are made to fit the supplies, so adding things might be a problem

Bruce Wick said the emphasis is on the Cal/OSHA requirement, not ANSI, and, he noted, California is the biggest medical market, so sellers will make Cal/OSHA compliant kits.

Horowitz noted in contrast that in so far as he was aware, no commercial kits have been made according to the current California construction list from the Table in 8CCR 1512.

Kevin Bland said that even though California is a large market, it still may be only 10% of the total US market.

Bob Barish asked, relative to the first aid training requirement, does the training have to be renewed?

Wendy Holt said that the Red Cross card has to be renewed every 2 years. Bruce Wick and Steve Johnson noted that Cal/OSHA compliance officers will give citations if a first aid or CPR card is not current.

Kevin Bland said that the renewal may be offset by having overlapping responsible first aid persons.

Bob Barish wanted to clarify, so there is always someone with current first aid training on the construction job site?

Bruce Wick said that is the understanding.

Horowitz noted that in the General Industry regulations, first aid training is not specifically required for the majority of employers—just those at remote locations.

Someone on the phone asked about the access to Emergency Medical Services time.

Mary Kochie noted Dr. Howard's 4 minute rule for EMS response—a guideline to determine if such response was timely enough or if first aid and CPR trained individuals were required. Close proximity to rapid EMS response is something difficult to prove in practice, she said.

Horowitz asked, regarding OTC items, should there be a class of items that people might want to add to the kit—even if unnecessary—but that could be listed as exempt from requiring physician or LHCP approval. He read some of the items that were included in his family's earthquake preparedness first aid kit, asking for each the opinions of the attendees:

Alcohol pads--OK, without approval

Iodine prep pads—should be left out of kit, these are not recommended anymore due to shellfish allergy reaction.

Antiseptic towelettes--OK

Antibiotic pads, et.--OK, if an allergic reaction to the antibiotic does occur, it will be a delayed reaction

Horowitz noted that he recently learned during an Emergency Room visit that the current best practice for cleaning wounds and preventing infection is the application of water for sufficient duration, without the application of antibiotics.

Richard Warner noted that there might be a problem of people adding too many things to the kits if all OTC drugs were permitted without PLHCP input.

Linda Morse noted that 24-percent of the US population has metabolic syndrome, so they are 6 times more susceptible to heart attack therefore first aid kits should have aspirin for early treatment in the field. It is pretty well established that early administration of aspirin is efficacious.

Horowitz added that you would need to specify that aspirin was in the first aid for the specific purpose of treating suspected heart attacks, and the aspirin would have to be the correct dose for this purpose.

People in attendance agreed, generally. Mary Kochie noted that the ANSI first aid standard specifies that contents must be individually packaged in single dose packages. The regulations should specify that the aspirin must be low dose baby aspirin.

Wendy Holt asked about the population that may have an adverse reaction to aspirin. The general response from the medical professionals present is that this is a very small group.

Mary Kochie suggested that there is some wisdom to the ANSI decision to not having tweezers as part of kit contents because of concerns of blood- or MRSA-contaminated tweezers being placed back in the kit after use without adequate cleaning. So if Cal/OSHA should continue to require tweezers, as it now does on the Table in 8CCR 1512, then disposable single-use tweezers should be specified.

Steve Seligman returned to the issue of the blood thinning effects of aspirin. He stated the employer shouldn't necessarily be required to be responsible for non-occupational medical incidents like a heart attack. Perhaps this aspirin issue is related to AED use. There shouldn't be anything in the kit to ingest or inject that could be misused. Possibly we could have exceptions for things like antiseptics, provided

there is training on their use. Employers need to be careful that the only things in a first aid kit are items that employees have been trained on.

Linda said that blood thinning is the therapeutic effect necessary for heart Myocardial Infarcts, and the earlier the aspirin is given, the better the results.

Sean Gillis said if Cal/OSHA required baby aspirins in first aid kits, there would be great public health effect...

Bob Barish noted that medical directions from 911 are not always available when needed during an emergency. But, he asked, is there an option for subscription services for the same kind of service, like Chemtrec provides regarding MSDS? No one knew of that kind of service.

Kevin Bland noted that Section 1511 already addresses the most needs, requiring the employer to make a thorough site survey of predictable hazards. It is hard to have a standard that would cover everything, Hazcom already addresses chemical exposures. Over the counter items, should not be included with the first aid items, even aspirin. Just as for AEDs, these things should not be required, but employers should make a decision. Employers should decide about things that are ingested or injected. Topical things and irrigants are okay. Special hazards like snakes are covered under Section 1511.

Alan Schuman said he agrees with Kevin Bland: Medical oversight on some first aid items is necessary to make sure of appropriate and safe use.

Mike said that the comments made today and recommendations will be sent out to participants. Participants will also be notified if there are to be any suggested changes for 1512 and 3400,

The meeting adjourned at 1235.



ATTENDANCE ROSTER

MEETING NAME ADVISORY MEETING DATE 6/29/11

CHAIRPERSON(S) Horewitz LOCATION ROOM 1204, 1515 CLAY STREET, OAKLAND

PLEASE BE SURE YOUR NAME, AFFILIATION, AND E-MAIL ARE CLEAR FOR ACCURATE TRANSCRIPTION - THANKS

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Tanner Crawford with Kate Smiley			
Kate Smiley	AGC-CA	916-769-2895	3095 Beacon Blvd West Sac, CA



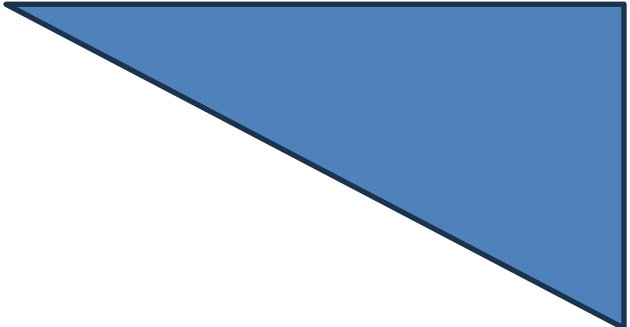
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Occupational Safety and Health Standards Board

Business Meeting Proposed Variance Decisions

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

**CONSENT CALENDAR—PROPOSED VARIANCE DECISIONS
JANUARY 15, 2026, MONTHLY BUSINESS MEETING
OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED DECISIONS FOR BOARD CONSIDERATION, HEARD ON DECEMBER 3, 2025

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
1. 22-V-570M1	Sierra Real Estate Holdings, LLC	ELEVATOR	GRANT
2. 23-V-126M1	SJ4 Burbank, LLC	ELEVATOR	GRANT
3. 23-V-367M1	Avelaide Melrose, LLC	ELEVATOR	GRANT
4. 23-V-373M1	King 1699 Bayshore Owner LLC	ELEVATOR	GRANT
5. 23-V-569M1	Taormina Family Apartments CIL LP	ELEVATOR	GRANT
6. 24-V-564M1	Jefferson Ocean Creek, LLC	ELEVATOR	GRANT
7. 24-V-565M1	JPI California Construction	ELEVATOR	GRANT
8. 24-V-567M1	Jefferson Ocean Creek, LLC	ELEVATOR	GRANT
9. 24-V-568M1	Jefferson Ocean Creek, LLC	ELEVATOR	GRANT
10. 25-V-344	Natomas III Apartments, LLC	ELEVATOR	GRANT
11. 25-V-345	Natomas III Apartments, LLC	ELEVATOR	GRANT
12. 25-V-346	Golden Age Properties Los Gatos	ELEVATOR	GRANT
13. 25-V-347	Golden Age Properties Los Gatos	ELEVATOR	GRANT
14. 25-V-348	Nader Heydayian	ELEVATOR	GRANT
15. 25-V-349	54 th Street Lions	ELEVATOR	GRANT
16. 25-V-350	The Latigo Group	ELEVATOR	GRANT
17. 25-V-351	County of Los Angeles	ELEVATOR	GRANT
18. 25-V-352	Open DTHLA RE Holdings, LLC	ELEVATOR	GRANT
19. 25-V-353	Roots Community Health	ELEVATOR	GRANT
20. 25-V-354	Fresno Hospitality LLC	ELEVATOR	GRANT
21. 25-V-355	Linda F. Jennings	ELEVATOR	GRANT

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
22. 25-V-356	City and County of San Francisco San Francisco Public Library (SFPL)	ELEVATOR	GRANT
23. 25-V-357	Natomas III Apartments, LLC	ELEVATOR	GRANT
24. 25-V-358	JWCH Institute, Inc.	ELEVATOR	GRANT
25. 25-V-359	East Los Angeles College	ELEVATOR	GRANT
26. 25-V-360	Cardiovascular Associates Holding, LP	ELEVATOR	GRANT
27. 25-V-361	Pasadena CA Senior LandCo, LLC	ELEVATOR	GRANT
28. 25-V-362	UCSF Benioff Children's Hospital Oakland	ELEVATOR	GRANT
29. 25-V-363	Living Hope Foundation, A Nonprofit Corp	ELEVATOR	GRANT
30. 25-V-364	Calvary Presbyterian Church of So. Pasadena	ELEVATOR	GRANT
31. 25-V-365	St. Margarets Episcopal School	ELEVATOR	GRANT
32. 25-V-366	Onewest Bank	ELEVATOR	GRANT
33. 25-V-367	2000 16th St. Associates, LP	ELEVATOR	GRANT
34. 25-V-368	El Dorado Senior Village Apartments, LP	ELEVATOR	GRANT
35. 25-V-369	Harvey Mini LLC	ELEVATOR	GRANT
36. 25-V-370	Michael Higgins	ELEVATOR	GRANT
37. 25-V-371	Fresno Unified School District	ELEVATOR	GRANT
38. 25-V-372	Santa Monica Boulevard Owner, LLC	ELEVATOR	GRANT
39. 25-V-373	Los Angeles County Metropolitan Transportation Authority	ELEVATOR	GRANT
40. 25-V-374	Los Angeles County Metropolitan Transportation Authority	ELEVATOR	GRANT
41. 25-V-375	Moonsquare Properties	ELEVATOR	GRANT

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
42. 25-V-376	California Polytechnic State University	ELEVATOR	GRANT
43. 25-V-377	Iowa Owner LLC	ELEVATOR	GRANT
44. 25-V-378	Old Course Road, LLC	ELEVATOR	GRANT
45. 25-V-379	Bryan Elsey, Owner 716 Seagaze LLC	ELEVATOR	GRANT
46. 25-V-380	3001 Iowa Owner LLC	ELEVATOR	GRANT
47. 25-V-381	3001 Iowa Owner LLC	ELEVATOR	GRANT
48. 25-V-382	8500 WH, LLC	ELEVATOR	GRANT
49. 25-V-383	Amvina LLC	ELEVATOR	GRANT
50. 25-V-384	City of Ontario	ELEVATOR	GRANT
51. 25-V-385	Bank of America	ELEVATOR	GRANT
52. 25-V-386	City of Ontario	ELEVATOR	GRANT
53. 25-V-387	69th Street Apartments LP	ELEVATOR	GRANT
54. 25-V-388	Mirka Investments, LLC	ELEVATOR	GRANT
55. 25-V-389	Moonridge Hotel LLC	ELEVATOR	GRANT
56. 25-V-390	Replay Healdsburg LLC	ELEVATOR	GRANT
57. 25-V-391	San Jose Monterey Pacific Association, A California Limited Partnership	ELEVATOR	GRANT
58. 25-V-392	Siskiyou Hospital, Inc. d.b.a. Fairchild Medical Center	ELEVATOR	GRANT
59. 25-V-393	Trinidad LLC	ELEVATOR	GRANT
60. 25-V-394	Google, LLC	ELEVATOR	GRANT
61. 25-V-395	Google, LLC	ELEVATOR	GRANT
62. 25-V-396	San Francisco Airport	ELEVATOR	GRANT
63. 25-V-397	Community Medical Centers, Inc.	ELEVATOR	GRANT
64. 25-V-398	VS Phase 2 LP	ELEVATOR	GRANT

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
65. 25-V-399	RAFA LA Development LLC	ELEVATOR	GRANT
66. 25-V-400	The Park Theater Trust	ELEVATOR	GRANT
67. 25-V-401	3104 Third LLC	ELEVATOR	GRANT
68. 25-V-402	Postmaster Group LLC	ELEVATOR	GRANT
69. 25-V-403	LS Hotel 3, LLC	ELEVATOR	GRANT
70. 25-V-404	LS Hotel 3, LLC	ELEVATOR	GRANT
71. 25-V-405	101 Housing Partners LP	ELEVATOR	GRANT
72. 25-V-406	BRIDGE New Hampshire, LP	ELEVATOR	GRANT
73. 25-V-407	State of California	ELEVATOR	GRANT
74. 25-V-408	Roseville Senior Affordable 2 LP	ELEVATOR	GRANT
75. 25-V-409	Roseville Senior Affordable 2 LP	ELEVATOR	GRANT
76. 25-V-410	DOCS Surgical Hospital	ELEVATOR	GRANT
77. 25-V-412	La Jolla Country Day School	ELEVATOR	GRANT
78. 25-V-413	Montclair Station Apartments, LLC	ELEVATOR	GRANT
79. 25-V-414	Montclair Station Apartments, LLC	ELEVATOR	GRANT
80. 25-V-415	Montclair Station Apartments, LLC	ELEVATOR	GRANT
81. 25-V-416	Sutter Valley Hospitals	ELEVATOR	GRANT
82. 25-V-417	The Arizona-Third Street Partnership, A CA LP	ELEVATOR	GRANT
83. 25-V-418	Valley Transportation Authority	ELEVATOR	GRANT
84. 25-V-419	North Capitol Property Owner LLC	ELEVATOR	GRANT
85. 25-V-420	VK Central, LLC	ELEVATOR	GRANT
86. 25-V-421	1701 San Pablo LP	ELEVATOR	GRANT
87. 25-V-422	Sunnyvale Bock 7 Housing Partners, LP	ELEVATOR	GRANT
88. 25-V-423	Harmony Senior Apartments, LP	ELEVATOR	GRANT

Docket Number	Applicant Name	Safety Order(s) at Issue	Proposed Decision Recommendation
89. 25-V-424	MP Midway Associates 2, LP	ELEVATOR	GRANT
90. 25-V-425	Jacmar Partners III, LLC	ELEVATOR	GRANT
91. 25-V-426	Brookes Avenue San Diego, LLC	ELEVATOR	GRANT
92. 25-V-427	Rose Hill Courts II Housing Partners, LP	ELEVATOR	GRANT
93. 25-V-428	School Site SPE LLC	ELEVATOR	GRANT
94. 25-V-429	Roseville Senior Affordable 2 LP	ELEVATOR	GRANT
95. 25-V-430	Roseville Senior Affordable 2 LP	ELEVATOR	GRANT
96. 25-V-431	8500 Haven LLC	ELEVATOR	GRANT
97. 25-V-432	8500 Haven LLC	ELEVATOR	GRANT
98. 25-V-433	8500 Haven LLC	ELEVATOR	GRANT
99. 25-V-434	8500 Haven LLC	ELEVATOR	GRANT
100. 25-V-435	8500 Haven LLC	ELEVATOR	GRANT
101. 25-V-436	8500 Haven LLC	ELEVATOR	GRANT
102. 25-V-437	8500 Haven LLC	ELEVATOR	GRANT
103. 25-V-438	GS Parks at Murrieta I, LLC	ELEVATOR	GRANT
104. 25-V-439	GS Parks at Murrieta I, LLC	ELEVATOR	GRANT
105. 25-V-440	GS Parks at Murrieta I, LLC	ELEVATOR	GRANT
106. 25-V-489	Mayfair Affordable Housing LP	ELEVATOR	GRANT
107. 25-V-490	Ken Walker	ELEVATOR	GRANT

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

In the Matter of Application to Modify Permanent Variance by: Sierra Real Estate Holdings, LLC	Permanent Variance No: 22-V-570M1 PROPOSED DECISION Hearing Date: December 3, 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-570	Sierra Real Estate Holdings, LLC	2020 S. Figueroa 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 December 3, 2025, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Pete Cuellar with Schindler Elevator, appeared on behalf of the Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

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

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the

safety regulation requirements from which variance shall issue. On December 3, 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-570 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-570M1 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-570 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-570 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-570, to be:

2000 S. Figueroa St.
Los Angeles, CA

D. Decision and Order

1. Permanent Variance Application No. 22-V-570M1 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-570 and any previously granted modifications therewith, shall have the following address designation:

2000 S. Figueroa St.
Los Angeles, CA

2. Permanent Variance No. 22-V-570 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-570M1.
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: December 15, 2025

Michelle Iorio
Michelle Iorio, Hearing Officer

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

In the Matter of Application to Modify Permanent Variance by: SJ4 Burbank, LLC	Permanent Variance No: 23-V-126M1 PROPOSED DECISION Hearing Date: December 3, 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
23-V-126	SJ4 Burbank, LLC	777 N. Front St. Burbank, 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 December 3, 2025, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

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

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the

safety regulation requirements from which variance shall issue. On December 3, 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. 23-V-126 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. 23-V-126M1 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. 23-V-126 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 23-V-126 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. 23-V-126, to be:

2 Elevators
700 N. Front St.
Burbank, CA

Location 2:
800 N. Front St.
Burbank, CA

D. Decision and Order

1. Permanent Variance Application No. 23-V-126M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each conveyance being the subject of Permanent Variance No. 23-V-126 and any previously granted modifications therewith, shall have the following address designation:

2 Elevators
700 N. Front St.
Burbank, CA

Location 2:
800 N. Front St.
Burbank, CA

2. Permanent Variance No. 23-V-126 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. 23-V-126M1.
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: December 16, 2025



Michelle Iorio, Hearing Officer

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

In the Matter of Application to Revoke Permanent Variance by: Avelaide Melrose, LLC	Permanent Variance No.: 23-V-367M1 PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance 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
23-V-367	Avelaide Melrose, LLC

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

B. Procedural

1. This hearing was held on December 3, 2025 via videoconference by the Board, with Hearing Officer Michelle Iorio both presiding and hearing the matter on its merit, in accordance with section 426.
2. At the hearing, Wolter Geesink with Otis Elevator Company and Dan Leacox of Leacox & Associates appeared on behalf of the Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).

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

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

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 revocation of previously granted Permanent Variance No. 23-V-367.
2. Application section 3 and 4, declared to be wholly truthful under penalty of perjury by Application signatory, states facts upon which reasonably may be based a finding that previously granted Permanent Variance No. 23-V-367 was made unnecessary and irrelevant by Permanent Variance No. 24-V-569. Permanent Variance No. 23-V-367 granted a variance from minimum cab dimensions for Medical Emergency Service (MES) elevators. Permanent Variance No. 24-V-569 does the same and more for the same elevators.
3. Cal/OSHA has evaluated the request for revocation of variance, finds no issue with it, and recommends that the application for revocation be granted to revoke the variance.
4. The Board finds the above subpart C.2 referenced declaration to be credible, uncontroverted, and consistent with available, sufficient facts, and of no bearing as to the finding of equivalent occupational health and safety upon which Grant of preexisting Permanent Variance No. 23-V-367 was, in part, based.
5. The Board finds Permanent Variance No. 23-V-367 is no longer needed.

D. Decision and Order

1. Permanent Variance Application No. 23-V-367M1 is GRANTED, thereby revoking Board records, such that, a variance no longer exists.
2. Permanent Variance No. 23-V-367, being revoked is hereby incorporated by reference into this Decision and Order of Permanent Variance No. 23-V-367M1 such that no variance shall exist.

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

Dated: December 22, 2025

Michelle Lorio
Michelle Lorio, Hearing Officer

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

In the Matter of Application to Modify Permanent Variance by: King 1699 Bayshore Owner LLC	Permanent Variance No: 23-V-373M1 PROPOSED DECISION Hearing Date: December 3, 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
23-V-373	King 1699 Bayshore Owner LLC	The Landing North Building 810 Malcolm Rd. Burlingame, 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 December 3, 2025, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

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

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On December 3, 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. 23-V-373 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. 23-V-373M1 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. 23-V-373 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 23-V-373 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. 23-V-373, to be:

The Landing North Building
1701 Old Bayshore Hwy
Burlingame, CA

D. Decision and Order

1. Permanent Variance Application No. 23-V-373M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each conveyance being the subject of Permanent Variance No. 23-V-373 and any previously granted modifications therewith, shall have the following address designation:

The Landing North Building
1701 Old Bayshore Hwy
Burlingame, CA

2. Permanent Variance No. 23-V-373 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. 23-V-373M1.
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: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

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

In the Matter of Application to Modify Permanent Variance by: Taormina Family Apartments CIC LP	Permanent Variance No: 23-V-569M1 PROPOSED DECISION Hearing Date: December 3, 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
23-V-569	Taormina Family Apartments CIC LP	5251 Mt. Etna Drive, Bldg C 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 December 3, 2025, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Minh Tran, with MITSUBISHI ELECTRIC US, INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

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

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the

safety regulation requirements from which variance shall issue. On December 3, 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. 23-V-569 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. 23-V-569M1 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. 23-V-569 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 23-V-569 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. 23-V-569, to be:

5255 Mt. Etna Drive, Bldg C
San Diego, CA

D. Decision and Order

1. Permanent Variance Application No. 23-V-569M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each conveyance being the subject of Permanent Variance No. 23-V-569 and any previously granted modifications therewith, shall have the following address designation:

5255 Mt. Etna Drive, Bldg C
San Diego, CA

2. Permanent Variance No. 23-V-569 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. 23-V-569M1.
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: December 15, 2025

Michelle Iorio
Michelle Iorio, Hearing Officer

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

In the Matter of Application to Modify Permanent Variance by: Jefferson Ocean Creek, LLC	Permanent Variance No: 24-V-564M1 PROPOSED DECISION Hearing Date: December 3, 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
24-V-564	Jefferson Ocean Creek, LLC	Building 1 - 1999 S. Oceanside Blvd. Oceanside, 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 December 3, 2025, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

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

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On December 3, 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. 24-V-564 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. 24-V-564M1 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. 24-V-564 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 24-V-564 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. 24-V-564, to be:

1999 S. Oceanside Blvd, Bldg #2
Oceanside, CA

D. Decision and Order

1. Permanent Variance Application No. 24-V-564M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each conveyance being the subject of Permanent Variance No. 24-V-564 and any previously granted modifications therewith, shall have the following address designation:

1999 S. Oceanside Blvd, Bldg #2
Oceanside, CA

2. Permanent Variance No. 24-V-564 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. 24-V-564M1.
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: December 17, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

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

In the Matter of Application to Modify Permanent Variance by: JPI California Construction	Permanent Variance No: 24-V-565M1 PROPOSED DECISION Hearing Date: December 3, 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
24-V-565	JPI California Construction	Building 2 - 1919 S. Oceanside Blvd. Oceanside, 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 December 3, 2025, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

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

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On December 3, 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. 24-V-565 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. 24-V-565M1 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. 24-V-565 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 24-V-565 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. 24-V-565, to be:

1919 S Oceanside Blvd, Bldg #4
Oceanside, CA

D. Decision and Order

1. Permanent Variance Application No. 24-V-565M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each conveyance being the subject of Permanent Variance No. 24-V-565 and any previously granted modifications therewith, shall have the following address designation:

1919 S Oceanside Blvd, Bldg #4
Oceanside, CA

2. Permanent Variance No. 24-V-565 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. 24-V-565M1.
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: December 17, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

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

In the Matter of Application to Modify Permanent Variance by: Jefferson Ocean Creek, LLC	Permanent Variance No: 24-V-567M1 PROPOSED DECISION Hearing Date: December 3, 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
24-V-567	Jefferson Ocean Creek, LLC	Building 4 - 1959 S. Oceanside Blvd. Oceanside, 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 December 3, 2025, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

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

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On December 3, 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. 24-V-567 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. 24-V-567M1 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. 24-V-567 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 24-V-567 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. 24-V-567, to be:

1959 S Oceanside Blvd, Bldg #1
Oceanside, CA

D. Decision and Order

1. Permanent Variance Application No. 24-V-567M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each conveyance being the subject of Permanent Variance No. 24-V-567 and any previously granted modifications therewith, shall have the following address designation:

1959 S Oceanside Blvd, Bldg #1
Oceanside, CA

2. Permanent Variance No. 24-V-567 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. 24-V-567M1.
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: December 17, 2025

Michelle Iorio
Michelle Iorio, Hearing Officer

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

In the Matter of Application to Modify Permanent Variance by: Jefferson Ocean Creek, LLC	Permanent Variance No: 24-V-568M1 PROPOSED DECISION Hearing Date: December 3, 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
24-V-568	Jefferson Ocean Creek, LLC	Building 5 - 1979 S. Oceanside Blvd. Oceanside, 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 December 3, 2025, via videoconference, by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Fwei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

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

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the safety regulation requirements from which variance shall issue. On December 3, 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. 24-V-568 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. 24-V-568M1 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. 24-V-568 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 24-V-568 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. 24-V-568, to be:

1979 S Oceanside Blvd., Bldg #3
Oceanside, CA

D. Decision and Order

1. Permanent Variance Application No. 24-V-568M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each conveyance being the subject of Permanent Variance No. 24-V-568 and any previously granted modifications therewith, shall have the following address designation:

1979 S Oceanside Blvd., Bldg #3
Oceanside, CA

2. Permanent Variance No. 24-V-568 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. 24-V-568M1.
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: December 17, 2025

Michelle Iorio
Michelle Iorio, Hearing Officer

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-344	Natomas III Apartments, LLC	3791 East Commerce Way Sacramento, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-344	1	7	150	12,247
25-V-344	2	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-345	Natomas III Apartments, LLC	3811 East Commerce Way Sacramento 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-345	1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 500 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-346	Golden Age Properties Los Gatos	12805 Saratoga Creek Dr. Saratoga, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Suspension Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-346	1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-347	Golden Age Properties Los Gatos	12805 Saratoga Creek Dr., Saratoga, CA 95070	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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in

conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-347	2	5	150	8,748

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations¹, as follows:

Variance No.	Applicant Name	Variance Location Address	No. of Elevators
25-V-348	Nader Heydayian	1295 La Cumbre Rd Hillsborough, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational and Safety Health Standard 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, Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Peter Cuellar with Schindler Elevator Corporation appeared on behalf of each Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

¹ Unless otherwise noted, references are to the California Code of Regulations, title 8.

Exhibit Number	Description of Exhibit
PD-1	Permanent variance applications per section A.1 table
PD-2	OSHSB Notice of Hearing
PD-3	Cal/OSHA Review of variance application
PD-4	Review Draft-1 of Proposed Decision

4. Official notice 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.

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, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(B), 2.14.1.7.1, and 2.26.9.6.1]. The relevant language of those sections are below.

Suspension Means

Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process, or their equivalent.

Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(b) the diameter in millimeters (mm) or inches (in.)

Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:

A metal data tag shall be securely attached-to-one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[...]

(f) whether the ropes were non preformed or preformed

Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{S \times N}{W}$$

where:

N= number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S= manufacturer's rated breaking strength of one rope

W= maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:

Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:

When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire-rope retaining clips shall be provided to attach the termination side to the load-carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

Inspection Transfer Switch

Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:

When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be

(a) located in the machine room[.]

Seismic Reset Switch

Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

Car-top Railings

Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:

A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

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.

C. Findings of Fact

1. Each Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations, specified per the above Section A.1 table.
2. The installation contract for these 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. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders (ESO). 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. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
7. Applicant proposes to insert the car-top railings at the perimeter of the car top.
8. Applicant intends to use an elevator control system, model CO NX100NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. 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 being 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 to 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);
- 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 and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria

available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

STM member mandatory replacement criteria shall include:

- i. Any exposed wire, strand or cord;
 - ii. Any wire, strand or cord breaks through the elastomeric coating;
 - iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric-coated steel suspension member;
 - iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;
- c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.
- d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.
- e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.
- f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).
- g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.
- h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

- i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.
 - j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.
 - k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.
 - l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, "Suspension Means Replacement Reporting Condition," Incorporated herein by this reference.
 - m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.
2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
4. If there is an inset car-top railing:
- a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car-top railing.
 - b. The distance that the railing can be inset shall be limited to not more than 6 inches.
 - c. All exposed areas of the car top outside the car-top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
 - d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4-inch diagonal red and white stripes.

- e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- f. The Group IV requirements for car-top clearances shall be maintained (car-top clearances outside the railing will be measured from the car top and not from the required bevel).
5. The SIL-rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:

- a. The SIL-rated devices and circuits shall consist of a Variodyn SIL-3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013 or VAF023, 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.
6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per California Code of Regulations, sections 411.2 and 411.3.
8. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

EXHIBIT 2

Suspension Means – Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and PERMANENT VARIANCE NO. 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.

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

In the Matter of Application for Permanent Variance Regarding: Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations¹, as follows:

Variance No.	Applicant Name	Variance Location Address	No. of Elevators
25-V-349	54th Street Lions LLC	5400 S. 4th Avenue Los Angeles, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational and Safety Health Standard 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, Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Peter Cuellar with Schindler Elevator Corporation appeared on behalf of each Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

¹ Unless otherwise noted, references are to the California Code of Regulations, title 8.

Exhibit Number	Description of Exhibit
PD-1	Permanent variance applications per section A.1 table
PD-2	OSHSB Notice of Hearing
PD-3	Cal/OSHA Review of variance application
PD-4	Review Draft-1 of Proposed Decision

4. Official notice 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.

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, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(B), 2.14.1.7.1, and 2.26.9.6.1]. The relevant language of those sections are below.

Suspension Means

Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process, or their equivalent.

Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(b) the diameter in millimeters (mm) or inches (in.)

Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:

A metal data tag shall be securely attached-to-one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[...]

(f) whether the ropes were non preformed or preformed

Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{S \times N}{W}$$

where:

N= number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S= manufacturer's rated breaking strength of one rope

W= maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:

Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:

When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire-rope retaining clips shall be provided to attach the termination side to the load-carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

Inspection Transfer Switch

Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:

When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be

(a) located in the machine room[.]

Seismic Reset Switch

Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

Car-top Railings

Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:

A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

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.

C. Findings of Fact

1. Each Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations, specified per the above Section A.1 table.
2. The installation contract for these 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. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders (ESO). 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. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
7. Applicant proposes to insert the car-top railings at the perimeter of the car top.
8. Applicant intends to use an elevator control system, model CO NX100NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. 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 being 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 to 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);
- 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 and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria

available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

STM member mandatory replacement criteria shall include:

- i. Any exposed wire, strand or cord;
 - ii. Any wire, strand or cord breaks through the elastomeric coating;
 - iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric-coated steel suspension member;
 - iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;
- c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.
- d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.
- e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.
- f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).
- g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.
- h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

- i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.
 - j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.
 - k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.
 - l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, "Suspension Means Replacement Reporting Condition," Incorporated herein by this reference.
 - m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.
2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 4. If there is an inset car-top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car-top railing.
 - b. The distance that the railing can be inset shall be limited to not more than 6 inches.
 - c. All exposed areas of the car top outside the car-top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
 - d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4-inch diagonal red and white stripes.

- e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- f. The Group IV requirements for car-top clearances shall be maintained (car-top clearances outside the railing will be measured from the car top and not from the required bevel).
5. The SIL-rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:

- a. The SIL-rated devices and circuits shall consist of a Variodyn SIL-3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013 or VAF023, 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.
6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per California Code of Regulations, sections 411.2 and 411.3.
8. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

EXHIBIT 2

Suspension Means – Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and PERMANENT VARIANCE NO. 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.

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

In the Matter of Application for Permanent Variance Regarding: Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations¹, as follows:

Variance No.	Applicant Name	Variance Location Address	No. of Elevators
25-V-350	The Latigo Group, LLC	2150 W. Hillcrest Dr. Thousand Oaks, CA	6

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational and Safety Health Standard 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, Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Peter Cuellar with Schindler Elevator Corporation appeared on behalf of each Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

¹ Unless otherwise noted, references are to the California Code of Regulations, title 8.

Exhibit Number	Description of Exhibit
PD-1	Permanent variance applications per section A.1 table
PD-2	OSHSB Notice of Hearing
PD-3	Cal/OSHA Review of variance application
PD-4	Review Draft-1 of Proposed Decision

4. Official notice 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.

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, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(B), 2.14.1.7.1, and 2.26.9.6.1]. The relevant language of those sections are below.

Suspension Means

Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process, or their equivalent.

Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(b) the diameter in millimeters (mm) or inches (in.)

Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:

A metal data tag shall be securely attached-to-one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[...]

(f) whether the ropes were non preformed or preformed

Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{S \times N}{W}$$

where:

N= number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S= manufacturer's rated breaking strength of one rope

W= maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:

Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:

When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire-rope retaining clips shall be provided to attach the termination side to the load-carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

Inspection Transfer Switch

Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:

When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be

(a) located in the machine room[.]

Seismic Reset Switch

Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

Car-top Railings

Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:

A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

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.

C. Findings of Fact

1. Each Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations, specified per the above Section A.1 table.
2. The installation contract for these 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. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders (ESO). 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. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
7. Applicant proposes to insert the car-top railings at the perimeter of the car top.
8. Applicant intends to use an elevator control system, model CO NX100NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. 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 being 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 to 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);
- 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 and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria

available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

STM member mandatory replacement criteria shall include:

- i. Any exposed wire, strand or cord;
 - ii. Any wire, strand or cord breaks through the elastomeric coating;
 - iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric-coated steel suspension member;
 - iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;
- c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.
- d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.
- e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.
- f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).
- g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.
- h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

- i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.
 - j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.
 - k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.
 - l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, "Suspension Means Replacement Reporting Condition," Incorporated herein by this reference.
 - m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.
2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
4. If there is an inset car-top railing:
- a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car-top railing.
 - b. The distance that the railing can be inset shall be limited to not more than 6 inches.
 - c. All exposed areas of the car top outside the car-top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
 - d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4-inch diagonal red and white stripes.

- e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- f. The Group IV requirements for car-top clearances shall be maintained (car-top clearances outside the railing will be measured from the car top and not from the required bevel).
5. The SIL-rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:
- a. The SIL-rated devices and circuits shall consist of a Variodyn SIL-3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013 or VAF023, 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.
6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per California Code of Regulations, sections 411.2 and 411.3.
8. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

EXHIBIT 2

Suspension Means – Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and PERMANENT VARIANCE NO. 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.

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

In the Matter of Application for Permanent Variance Regarding: Schindler Model 3300 Elevators, w/variant Gov. Ropes and Sheaves (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-351	County of Los Angeles	301 North Broadway 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Pete Cuellar, with SCHINDLER ELEVATOR CORPORATION, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 9, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA Elevator Unit HQS

EXHIBIT 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future):
CAL/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering Section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance file number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Schindler Model 5500 Elevator (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-352	Open DTHLA RE Holdings, LLC	800 Martin Luther King, Jr. 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Pete Cuellar, with SCHINDLER ELEVATOR CORPORATION, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 2025, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

Requested Suspension Means Related Variance:

1. As each pertains to the non-circular elastomeric coated suspension members characteristic of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following Elevator Safety Order incorporated ASME Safety Code for Elevators and Escalators (ASME Code) A17.1-2004 sections and subsections:
 - Section 2.20.1 - Wire rope suspension means;
 - Section 2.20.2.1 - Crosshead data plate;
 - Subsection 2.20.2.2(a) - Wire rope data tag;
 - Subsection 2.20.2.2(f) - ID of steel wire rope as preformed or nonpreformed;
 - Section 2.20.3 - Wire rope safety factor;
 - Section 2.20.4 - Number and diameter of wire ropes;
 - Section 2.20.9.3.4 - Wire rope end connections;
 - Section 2.20.9.5 - Wire rope sockets;

Requested Car Top Railing Inset Variance:

2. As it pertains to top of car railing placement requiring space occupied by upper hoistway mounted elevator machinery characteristic of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following title 8, Elevator Safety Order incorporated ASME Code A17.1-2004 section:

Section 2.14.1.7.1 - Top of Car Perimeter Railing Placement

Requested Seismic Reset Switch Placement Variance:

3. As it pertains to installation of the requisite seismic reset switch within a "machine room" location incompatible with machine-room-less design of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following title 8, Elevator Safety Order incorporated ASME Code subsection:

Subsection 8.4.10.1.1(a)(2)(b)--Seismic Reset Switch Placement in Machine Room

Requested Transfer Switch Placement Variance:

4. As it pertains to installation of the requisite transfer switch within a "machine room" location incompatible with machine-room-less design of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following title 8, Elevator Safety Order incorporated ASME Code A17.1-2004 subsection:

Subsection 2.26.1.4.4(a)--Transfer Switch Placement in Machine Room

Official Notice and Incorporation by Reference - Permanent Variance No. 15-V-349:

5. Per hereby entered stipulation offered at hearing by Applicant, and Cal/OSHA, concerning preexisting Board records, including decisions in matters of permanent variance from Elevator Safety Order requirements, the Board takes Official Notice and expressly incorporates herein by reference, Permanent Variance No. 15-V-349, Decision and Order adopted November 17, 2016, section D.1 - D.75 findings, and therein entered record upon which it was based.

Positions of Cal/OSHA:

6. Having fully reviewed Applicant's request for variance from the above identified Elevator Safety Order requirements, it is the opinion of Cal/OSHA, that conditionally limited grant to Applicant of permanent variance as specified per the below Decision and Order, will provide for elevator safety, and occupational safety and health, equivalent or superior to that of the Elevator Safety Order requirements from which variance is being sought. The present opinion of Cal/OSHA, to any extent it may vary from those previously held with respect to the previously heard matter in Permanent Variance No. 15-V-349, reflects further scrutiny of the subject matter, consultation between Cal/OSHA, Applicant representatives, and refinement of recommended conditions and limitations.

D. Conclusive Findings

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

E. Decision and Order

Applicant is hereby conditionally GRANTED Permanent Variance as stated below, to the limited extent that each enumerated conveyance at the given location shall be subject to conditionally limited permanent variance from the below specified ASME A17.1-2004, requirements incorporated by reference into section 3141.

Suspension Members: Applicant shall conditionally hold permanent variance from the following section 3141 incorporated sections and subsections of ASME A17.1-2004, to the limited extent variance is necessary to provide for use of noncircular elastomeric- coated steel suspension members and concomitant components, and configurations - section 2.20.1; section 2.20.2.1; subsection 2.20.2.2(a); subsection 2.20.2.2(f); section 2.20.3; section 2.20.4; section 2.20.9.3.4; and section 2.20.9.5.4.

Inspection Transfer Switch: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section of ASME A17.1-2004, to the extent variance is necessary to having the requisite inspection transfer switch located elsewhere than a machine room, within a Security Group I enclosure built into an upper floor landing door jam, or within other readily accessible and secure space shared with the motion controller outside the hoistway: section 2.26.1.4.4(a).

Seismic Safety Switch Placement: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section of ASME A17.1-2004, to the limited extent variance is necessary to having the requisite seismic reset switch located elsewhere than a machine room, within a Security Group I enclosure built into an upper floor landing door jam, or within other readily accessible and secure space shared with the motion controller outside the hoistway: section 8.4.10.1.1(a)(2)(b).

Car Top Railing: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section of ASME A17.1-2004, to the limited extent variance is necessary to provide for the below specified inseting of the subject elevator's top of car railing: section 2.14.1.7.1.

Further Conditions and Limitations:

1. The elevator suspension system shall comply with the following:

1.1. The suspension traction media (STM) members and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:

- Section 2.20.4.3 - Minimum Number of Suspension Members
- Section 2.20.3 - Factor of Safety
- Section 2.20.9 - Suspension Member Fastening

1.2. Additionally, STMs shall meet or exceed all requirements of ASME A17.6-2010 Standard for Elevator Suspension, Compensation, and Governor Systems, Part 3, Noncircular Elastomeric Coated Steel Suspension Members for Elevators.

1.3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the STM members and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

1.4. STM member mandatory replacement criteria shall include:

1.4.1 Any exposed wire, strand or cord;

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

1.4.3 Any evidence of rouging (steel tension element corrosion) on any part of the

elastomeric coated steel suspension member;

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

1.5. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.

1.6. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: If a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.

1.7. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.

1.8. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).

1.9. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. Notwithstanding any less frequent periodic testing requirement per Addendum 1 (Cal/OSHA Circular Letter), the bend cycle monitoring system shall be tested semi-annually in accordance with the procedures required per above Conditions 1.2, and 1.3.

1.10. Each elevator shall be provided with a device that electronically detects a reduction in residual strength of each STM member. The device shall be in compliance with Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Addendum 1, and incorporated herein by reference.

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

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

1.13. Comprehensive visual inspections of the entire length of each and all installed suspension members, in conformity with above Conditions 1.2 and 1.3 specified criteria, shall be conducted and documented every six months by a CCCM.

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

1.15. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.

2. Inspection Transfer switch and Seismic Reset switch placement and enclosure shall comply with the following:

2.1. If the inspection transfer switch required by ASME A17.1-2004, Rule 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

2.2. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

3. Any and all inset car top railing shall comply with the following:

3.1. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to stand on or climb over the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car top railing.

3.2. The distance that the railing can be inset shall be limited to not more than 12 inches.

3.3. All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.

3.4. The top surface of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

3.5. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing; each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

3.6. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required

bevel).

4. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by CCCM having been trained, and competent, to perform those tasks on the Schindler Model 5500 elevator system in accordance with written procedures and criteria, including as required per above Conditions 1.2, and 1.3.
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. 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.
7. This Decision and Order shall remain in effect unless modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 15, 2025



Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 500 Elevators (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-353	Roots Community Health	7272 Macarthur Blvd Oakland, CA 94605	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 December 3, 2025 via videoconference by the Board with Hearing Officer, Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 500 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in

conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 500 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.

7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
14. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-353	1	6	150	10,497

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-354	Fresno Hospitality LLC	6965 West Farrington Ave. Fresno, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by

ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.

6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-354	1	7	150	12,247
25-V-354	2	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-355	Linda F. Jennings	18424 Harbin Springs Rd. Middletown, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-355	1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 500 Elevators (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-356	City and County of San Francisco San Francisco Public Library (SFPL)	300 Bartlett Street San Francisco, CA	1

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

B. Procedural

1. This hearing was held on December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 500 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.

7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
14. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-356	1	6	150	10,497

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-357	Natomas III Apartments, LLC	3831 East Commerce Way Sacramento 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-357	1	7	150	12, 247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance 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:

Variance No.	Applicant Name	Variance Location Address	No. of Elevators
25-V-358	JWCH Institute, Inc.	515 Crocker Street Los Angeles, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational and Safety Health Standard 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, Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Peter Cuellar with Schindler Elevator Corporation appeared on behalf of each Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. 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 variance applications per section A.1 table
PD-2	OSHSB Notice of Hearing
PD-3	Cal/OSHA Review of variance application
PD-4	Review Draft-1 of Proposed Decision

4. Official notice 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.

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, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(B), 2.14.1.7.1, and 2.26.9.6.1]. The relevant language of those sections are below.

Suspension Means

Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process, or their equivalent.

Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(b) the diameter in millimeters (mm) or inches (in.)

Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:

A metal data tag shall be securely attached-to-one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[...]

(f) whether the ropes were non preformed or preformed

Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{S \times N}{W}$$

where:

N= number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S= manufacturer's rated breaking strength of one rope

W= maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:

Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:

When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire-rope retaining clips shall be provided to attach the termination side to the load-carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

Inspection Transfer Switch

Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:

When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be

(a) located in the machine room[.]

Seismic Reset Switch

Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

Car-top Railings

Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:

A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

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.

C. Findings of Fact

1. Each Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations, specified per the above Section A.1 table.
2. The installation contract for these 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. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders (ESO). 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. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
7. Applicant proposes to insert the car-top railings at the perimeter of the car top.
8. Applicant intends to use an elevator control system, model CO NX100NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. 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 being 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 to 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);
- 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 and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria

available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

STM member mandatory replacement criteria shall include:

- i. Any exposed wire, strand or cord;
 - ii. Any wire, strand or cord breaks through the elastomeric coating;
 - iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric-coated steel suspension member;
 - iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;
- c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.
- d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.
- e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.
- f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).
- g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.
- h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

- i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.
 - j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.
 - k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.
 - l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, "Suspension Means Replacement Reporting Condition," Incorporated herein by this reference.
 - m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.
2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
4. If there is an inset car-top railing:
- a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car-top railing.
 - b. The distance that the railing can be inset shall be limited to not more than 6 inches.
 - c. All exposed areas of the car top outside the car-top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
 - d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4-inch diagonal red and white stripes.

- e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- f. The Group IV requirements for car-top clearances shall be maintained (car-top clearances outside the railing will be measured from the car top and not from the required bevel).
5. The SIL-rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:

- a. The SIL-rated devices and circuits shall consist of a Variodyn SIL-3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013 or VAF023, 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.
6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per California Code of Regulations, sections 411.2 and 411.3.
8. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025



Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

EXHIBIT 2

Suspension Means – Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and PERMANENT VARIANCE NO. 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.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-359	East Los Angeles College	ELAC NAHPS Building 1301 Avenida Cesar Chavez Monterey Park, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates and Wolter Geesink with Otis Elevator Company appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-360	Cardiovascular Associates Holding, LP	The Heart Peach Medical Center 432 N. Peach Ave. Clovis, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox with Leacox & Associates and Wolter Geesink with Otis Elevator Company appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-361	Pasadena CA Senior LandCo, LLC	995 South S. Fair Oaks Ave. Pasadena, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates and Wolter Geesink with Otis Elevator Company appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-362	UCSF Benioff Children's Hospital Oakland	747 52nd Street Oakland, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in

conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-362	1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Arrow Lift Symmetry VPL/VLC SL/SLH-168 Vertical Platform Lift	Permanent Variance No.: 25-V-363 PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants ("Applicant") below have applied for permanent variance 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-363	Living Hope Foundation, A Nonprofit Corp	290 E 2nd Street Pomona, 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 Standard 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 Michelle Iorio, both presiding and hearing the matter on its merit as the basis of a proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Patrick Austin with Arrow Lift of California, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. 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 Variance Applications

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

4. Official notice 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. Applicant intends to utilize the vertical platform (wheelchair) lift(s) in the quantity, at the location, specified per the above section A.1 table.

290 E 2nd Street
Pomona, CA

2. The subject vertical lift is proposed to be a Symmetry Model VPL/VPC SL/SLH-168, with a vertical travel range of approximately 168 inches. That range of travel exceeds the 12 foot maximum vertical rise allowed by ASME A18.1-2003, section 2.7.1—the State of California standard in force at the time of this Decision.
3. The Cal/OSHA evaluation in this matter, states that the more recent consensus code ASME A18.1-2005 allows for vertical platform lifts to have a travel not exceeding 14 feet (168 in.).
4. Permanent variances regarding the extended travel of vertical platform lifts, of similar configuration to that of the subject proposed model, have been previously granted, absent subsequent harm attributable to such variance being reported by Cal/OSHA. (e.g. Permanent Variance Nos. 13-V-260, 15-V-097, 17-V-270, 18-V-278, 19-V-256).
5. With respect to the equivalence or superior of safety, conditions and limitations of the Decision and Order are in material conformity with findings and conditions of prior Board permanent variance decisions, including the above cited.
6. Per its written Review of Application for Permanent Variance, Exhibit PD-3, it is the informed opinion of Cal/OSHA that equivalent safety (at minimum) will be achieved upon grant of presently requested permanent variance, subject to conditions and limitations incorporated into the below Decision and Order.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A.1 table shall have permanent variances from sections 3041(a) and 3142.1, incorporated ASME A18.1-2003, section 2.7.1, inasmuch as it restricts the vertical rise of a wheelchair lift to a maximum of 12 feet and subject to the following further conditions and limitations:

1. This lift may travel up to 168 inches, unless the manufacturer's instructions provide for a lesser vertical travel limit, or lesser total elevation change, in which case, travel shall be limited to the lesser limit or elevation change.
2. The wheelchair lift shall be installed and operated in accordance with the manufacturer's instructions, unless the provisions of this variance or applicable provisions of the law provide otherwise.
3. Durable signs with lettering not less than 5/16 inch on a contrasting background shall be permanently and conspicuously posted inside the car and at all landings indicating that the lift is for the exclusive use of persons with physical impairments and that the lift is not to be used to transport material or equipment. The use of the lift shall be limited in accordance with these signs.
4. A maintenance contract shall be executed between the owner/operator and a Certified Qualified Conveyance Company (CQCC). The contract shall stipulate that the routine preventive maintenance required by section 3094.5(a)(1) shall be performed at least quarterly and shall include but not be limited to:
 - a. Platform driving means examination;
 - b. Platform examination;
 - c. Suspension means examination;
 - d. Platform alignment;
 - e. Vibration examination;
 - f. Door/gate electrical; and
 - g. Mechanical lock examination.
5. The lift shall be tested annually for proper operation under rated load conditions. The Cal/OSHA Elevator Unit District Office shall be provided written notification in advance of the test, and the test shall include a check of car or platform safety device.

6. The lift shall be shut down immediately if the lift experiences unusual noise and vibration, and the Applicant shall notify the CQCC immediately. The lift shall only be restarted by the CQCC.
7. The Applicant shall notify the CQCC if the lift shuts down for any reason. The lift shall only be restarted by the CQCC.
8. Service logs including, but not limited to, the device shutdown(s) shall be kept in the maintenance office and shall be available to Cal/OSHA. The shutdown information shall contain the date of the shutdown, cause of the shutdown, and the action taken to correct the shutdown.
9. The Applicant shall provide training on the safe operation of the lift in accordance with section 3203. Such training shall be conducted annually for all employees using or who will be assisting others in using the lift. The Applicant shall notify Cal/OSHA in writing that training has been conducted. A copy of the training manual (used for the subject training), and documentation identifying the trainer and attendees shall be maintained for at least 1 year and provided to Cal/OSHA upon request.
10. Any CQCC performing inspections, maintenance, servicing or testing of the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the lift is ready for inspection, and the lift shall be inspected by Cal/OSHA and a Permit to Operate shall be issued before the lift is put into service.
12. 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.
13. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion.

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

Dated: December 22, 2025

Michelle Iorio
Michelle Iorio, Hearing Officer

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

In the Matter of Application for Permanent Variance Regarding: Arrow Lift Symmetry VPL/VLC SL/SLH-168 Vertical Platform Lift	Permanent Variance No.: 25-V-364 PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants ("Applicant") below have applied for permanent variance 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-364	Cavalry Presbyterian Church of South Pasadena	1050 Fremont Ave. South 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 Standard 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 Michelle Iorio, both presiding and hearing the matter on its merit as the basis of a proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Patrick Austin with Arrow Lift of California, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. 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 Variance Applications

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

4. Official notice 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. Applicant intends to utilize the vertical platform (wheelchair) lift(s) in the quantity, at the location, specified per the above section A.1 table.

1050 Fremont Ave.
South Pasadena, CA

2. The subject vertical lift is proposed to be a Symmetry Model VPL/VPC SL/SLH-168, with a vertical travel range of approximately 168 inches. That range of travel exceeds the 12 foot maximum vertical rise allowed by ASME A18.1-2003, section 2.7.1—the State of California standard in force at the time of this Decision.
3. The Cal/OSHA evaluation in this matter, states that the more recent consensus code ASME A18.1-2005 allows for vertical platform lifts to have a travel not exceeding 14 feet (168 in.).
4. Permanent variances regarding the extended travel of vertical platform lifts, of similar configuration to that of the subject proposed model, have been previously granted, absent subsequent harm attributable to such variance being reported by Cal/OSHA. (e.g. Permanent Variance Nos. 13-V-260, 15-V-097, 17-V-270, 18-V-278, 19-V-256).
5. With respect to the equivalence or superior of safety, conditions and limitations of the Decision and Order are in material conformity with findings and conditions of prior Board permanent variance decisions, including the above cited.
6. Per its written Review of Application for Permanent Variance, Exhibit PD-3, it is the informed opinion of Cal/OSHA that equivalent safety (at minimum) will be achieved upon grant of presently requested permanent variance, subject to conditions and limitations incorporated into the below Decision and Order.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A.1 table shall have permanent variances from sections 3041(a) and 3142.1, incorporated ASME A18.1-2003, section 2.7.1, inasmuch as it restricts the vertical rise of a wheelchair lift to a maximum of 12 feet and subject to the following further conditions and limitations:

1. This lift may travel up to 168 inches, unless the manufacturer's instructions provide for a lesser vertical travel limit, or lesser total elevation change, in which case, travel shall be limited to the lesser limit or elevation change.
2. The wheelchair lift shall be installed and operated in accordance with the manufacturer's instructions, unless the provisions of this variance or applicable provisions of the law provide otherwise.
3. Durable signs with lettering not less than 5/16 inch on a contrasting background shall be permanently and conspicuously posted inside the car and at all landings indicating that the lift is for the exclusive use of persons with physical impairments and that the lift is not to be used to transport material or equipment. The use of the lift shall be limited in accordance with these signs.
4. A maintenance contract shall be executed between the owner/operator and a Certified Qualified Conveyance Company (CQCC). The contract shall stipulate that the routine preventive maintenance required by section 3094.5(a)(1) shall be performed at least quarterly and shall include but not be limited to:
 - a. Platform driving means examination;
 - b. Platform examination;
 - c. Suspension means examination;
 - d. Platform alignment;
 - e. Vibration examination;
 - f. Door/gate electrical; and
 - g. Mechanical lock examination.
5. The lift shall be tested annually for proper operation under rated load conditions. The Cal/OSHA Elevator Unit District Office shall be provided written notification in advance of the test, and the test shall include a check of car or platform safety device.

6. The lift shall be shut down immediately if the lift experiences unusual noise and vibration, and the Applicant shall notify the CQCC immediately. The lift shall only be restarted by the CQCC.
7. The Applicant shall notify the CQCC if the lift shuts down for any reason. The lift shall only be restarted by the CQCC.
8. Service logs including, but not limited to, the device shutdown(s) shall be kept in the maintenance office and shall be available to Cal/OSHA. The shutdown information shall contain the date of the shutdown, cause of the shutdown, and the action taken to correct the shutdown.
9. The Applicant shall provide training on the safe operation of the lift in accordance with section 3203. Such training shall be conducted annually for all employees using or who will be assisting others in using the lift. The Applicant shall notify Cal/OSHA in writing that training has been conducted. A copy of the training manual (used for the subject training), and documentation identifying the trainer and attendees shall be maintained for at least 1 year and provided to Cal/OSHA upon request.
10. Any CQCC performing inspections, maintenance, servicing or testing of the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the lift is ready for inspection, and the lift shall be inspected by Cal/OSHA and a Permit to Operate shall be issued before the lift is put into service.
12. 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.
13. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion.

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

Dated: December 22, 2025

Michelle Iorio
Michelle Iorio, Hearing Officer

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-365	St Margarets Episcopal School	31732 Rancho Viejo Rd San Juan Capistrano, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fwei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in

conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.

7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-365	Elevator 1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 500 Elevators (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-366	Onewest Bank	18585 West Ventura Blvd. Tarzana, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 500 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 500 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.

7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
14. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-366	1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 500 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-367	2000 16th St. Associates, LP	2000 16th St. Sacramento, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quality of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-367	1	7	150	12,247
25-V-367	2	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-368	El Dorado Senior Village Apartments, LP	6464 Koki Lane Unit A El Dorado, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in

conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-368	1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 500 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-369	Harvey Mini LLC	1650 Harvey Milk St. San Diego, CA	1

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

B. Procedural

1. This hearing was held on December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-369	1	8	350	11,706

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-370	Michael Higgins	5959 East Ave. Etiwanda, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in

conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.

7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-370	Elevator 1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 500 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-371	Fresno Unified School District	4250 E Tulare Avenue Fresno, CA	1

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

B. Procedural

1. This hearing was held on December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE, Inc., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-371	E1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Mitsubishi Elevators (Group IV)	Permanent Variance Nos.: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance 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-372	Santa Monica Boulevard Owner, LLC	5601 West Santa Monica Blvd. Los Angeles, CA	10

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 Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Minh Tran with Mitsubishi Electric, Elevator appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. At the hearing, documentary and oral evidence was received, and by stipulation of all parties, documents were accepted into evidence:

Exhibit Number	Description of Exhibit
PD-1	Permanent variance applications per section A.1 table
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 December 3, 2025, the hearing and record closed and the matter taken under submission by the Hearing Officer.

C. Findings of Fact

1. Each section A table specified Applicant intends to utilize Mitsubishi elevators at the location and in the number stated in the table in Item A. The installation contracts for these elevators were signed on or after May 1, 2008, thus making the elevators subject to the Group IV Elevator Safety Orders.
2. The Board takes official notice and incorporates herein, Subsections D.3 through D.5 of the February 20, 2014, Decision of the Board in Permanent Variance File No. 13-V-270.
3. As reflected in the record of this matter, including Cal/OSHA evaluation as PD-3, and testimony at hearing, it is the professionally informed opinion of Cal/OSHA, that grant of requested variance, subject to conditions and limitations in substantial conforming with those set out per below Decision and Order, will provide Occupational Safety and Health equivalent or superior to that provided by the safety order requirements from which variance is sought.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A.1 table shall have permanent variances from sections 3041, subdivision (e)(1)(C) and 3141.7, subdivision (b) subject of the following conditions:

- a. The car top railing may be inset only to the extent necessary to clear obstructions when the conveyance is located at the top landing to perform work on the machine and/or governor.
- b. Serviceable equipment shall be positioned so that mechanics, inspectors, and others working on the car top can remain positioned on the car top within the confines of the railings and do not have to climb on or over railings to perform adjustment, maintenance, minor repairs, inspections, or similar tasks. Persons performing those tasks are not to stand on or climb over railing, and those persons shall not remove handrails unless the equipment has been secured from movement and approved personal fall protection is used.
- 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 an intermediate or bottom rail to the outside of the car top.
 - d. The top surface of the beveled area shall be clearly marked. The markings shall consist of alternating 4-inch red and white diagonal stripes.
 - e. The Applicant shall provide a durable sign with lettering not less than ½-inch high on a contrasting background. The sign shall be located on the inset top railing; the sign shall be visible from the access side of the car top, and the sign shall state:

CAUTION

DO NOT STAND ON OR CLIMB OVER RAILING.

**PERSONNEL ARE PROHIBITED FROM REMOVING HANDRAIL
UNLESS THE EQUIPMENT HAS BEEN SECURED FROM MOVEMENT
AND APPROVED PERSONAL FALL PROTECTION IS USED.**

- 6. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).
- 7. A mechanical means (e.g., locking bar mechanism) that will secure the car to the guide rail to prevent unintended movement shall be provided and used during machine and/or governor car-top work. The mechanical means (e.g., locking bar mechanism) shall have a safety factor of not less than 3.5 for the total unbalanced load.
- 8. An electrical switch or a lockout/tagout procedure shall be provided that will remove power from the driving machine and brake when the mechanical means (e.g., locking bar mechanism) is engaged.

9. In order to inhibit employees from working outside the car top railing, sections shall not be hinged and they shall be installed by means that will inhibit (but not necessarily completely preclude) removal. The Applicant shall ensure that all persons performing work that requires removal of any part of the car top railing are provided with fall protection that is appropriate and suitable for the assigned work. That fall protection shall consist of a personal fall arrest system or fall restraint system that complies with section 1670.
10. The bevel utilized by the Applicant in accordance with the variance granted from ASME A17.1-2004, section 2.10.2.4 shall slope at not less than 75 degrees from the horizontal to serve as the toe board; however, that slope may be reduced to a minimum of 40 degrees from the horizontal as may be required for sections where machine encroachment occurs.
11. If the Applicant directs or allows its employees to perform tasks on the car top, the Applicant shall develop, implement, and document a safety training program that shall provide training to Applicant employees. Components of the training shall include, but not necessarily be limited to, the following: car blocking procedures; how examination, inspection, adjustment, repair, removal and replacement of elevator components are to be performed safely, consistent with the requirements of the variance conditions; applicable provisions of the law and other sources of safety practices regarding the operation of the elevator. A copy of the training program shall be located in the control room of each elevator that is the subject of this variance, and a copy of the training program shall be attached to a copy of this variance that shall be retained in any building where an elevator subject to this variance is located. The Applicant shall not allow Certified Qualified Conveyance Company (CQCC) or other contractor personnel to work on the top of any elevator subject to this variance unless the Applicant first ascertains from the CQCC or other contractor that the personnel in question have received training equivalent to, or more extensive than, the training components referred to in this condition.
12. Any CQCC performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
13. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
14. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.

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

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

Dated: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

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

In the Matter of Application for Permanent Variance regarding: Schindler Sleep Mode Escalators	OSHSB File Nos.: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter and Jurisdiction:

1. Each below listed applicant (“Applicant”) has applied for permanent variance from certain provisions of the Elevator Safety Orders, found at title 8, of the California Code of Regulations¹, with respect to a conveyance, or conveyances, in the listed quantity, at the listed location:

Variance No.	Applicant Name	Variance Location Address	No. of Escalators
25-V-373	Los Angeles County Metropolitan Transportation Authority	10131 W. Constellation Blvd Los Angeles, CA	8

2. This proceeding is conducted in accordance with Labor Code section 143, and section 401, et. seq. of the Board’s procedural rules.
3. The safety orders at issue are section 3141.11, incorporated ASME A17.1-2004, sections 6.1.4.1., and 6.1.6.4.

B. Process and Procedure:

1. This hearing was held on December 3, 2025, via teleconference, by Occupational Safety and Health Standards Board (“Board”), with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit, as a basis of proposed decision to be advanced to the Board for its consideration, in accordance with section 426.
2. At the hearing, Peter Cuellar, with Schindler Elevator Corporation, appeared on behalf of the Applicants; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).

¹ Unless otherwise stated, all references are to title 8, California Code of Regulations.

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 variance applications per section A.1 table
PD-2	OSHSB Notice of Hearing
PD-3	Board Staff Reviews of Variance Application
PD-4	Division Reviews of Variance Application
PD-5	Review Draft-1 Proposed Decision

Official notice is taken of the Board’s rulemaking records, and variance decisions concerning the safety order requirements from which variance is requested. At close of hearing on December 3, 2025, the record was closed, and the matter taken under submission by the Hearing Officer.

C. Findings of Fact—Based upon the record of this proceeding, the Board finds the following:

1. Applicant proposes to install new 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, title 8, Elevator Safety Orders, Group IV, section 3141.11, incorporated ASME A17.1-2004, sections 6.1.4.1 regarding limits of escalator speed, and A17.1-2004, section 6.1.6.4, regarding handrail speed. The Division has identified another closely related section 3141.11 incorporated ASME requirement from which variance would be needed, in order to for the escalator system to operate as proposed—ASME A17-1-2004, section 6.1.4.1, regarding escalator speed after start-up.
2. 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.”
3. A 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. The Division 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 regarding the varying the speed of an escalator after start-up. For this reason among others identified within the its Review of Application, the Division 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.
9. 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."*

10. The Division 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 (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, 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."

11. 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.”

12. The Division 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.
13. 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. OSHSB File No. 13-V-153, 15-V-236, 16-V-069), absent, to the Division’s reported knowledge, adverse effect upon passenger or workplace safety or health.
14. Both Division and Board staff recommend 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) Each 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 each Applicant’s proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety to the Elevator Safety Orders from which variance is being sought.

E. Decision and Order:

The Application of each above section A table identified Applicant, 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 and per the Appendix B designations, shall have permanent variance from the following subparts of ASME A17.1-2004, sections 6.1.4.1., and 6.1.6.4, 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 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/sec^2) [not to exceed 1 ft/sec^2]

- (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 the Division, 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. The Division shall be notified when the escalator is ready for inspection, and the escalator shall be inspected by the Division 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), the Division, or by the Board on its own motion, as allowed by the Board's procedural rules.

Pursuant to section 426(b), the above, duly completed Proposed Decision, is hereby submitted to the Occupational Safety and Health Standards Board for consideration of adoption.

DATED: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

Appendix A
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

$$d = (V_f - V_s) \times \frac{V_w}{a}$$

d Detection distance (ft.)

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

V_f Elevator Rated Speed Escalators with rated speeds of 100 ft./min.

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

V_s Slow Speed[“Sleep mode” Speed] (ft./min.)

V_w Passenger Walking Speed of 4.5 ft./sec.

Appendix B

Permanent Variance is granted as to the below specified escalators, identified by the Applicant assigned designations in effect on the date of Decision and Order adoption:

Variance No.	Escalator ID
25-V-373	01
25-V-373	02
25-V-373	03
25-V-373	04
25-V-373	05
25-V-373	06
25-V-373	3A
25-V-373	4A

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

In the Matter of Application for Permanent Variance regarding: Schindler Sleep Mode Escalators	OSHSB File Nos.: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter and Jurisdiction:

1. Each below listed applicant (“Applicant”) has applied for permanent variance from certain provisions of the Elevator Safety Orders, found at title 8, of the California Code of Regulations¹, with respect to a conveyance, or conveyances, in the listed quantity, at the listed location:

Variance No.	Applicant Name	Variance Location Address	No. of Escalators
25-V-374	Los Angeles County Metropolitan Transportation Authority	9430 Wilshire Blvd. Beverly Hills, CA	6

2. This proceeding is conducted in accordance with Labor Code section 143, and section 401, et. seq. of the Board’s procedural rules.
3. The safety orders at issue are section 3141.11, incorporated ASME A17.1-2004, sections 6.1.4.1., and 6.1.6.4.

B. Process and Procedure:

1. This hearing was held on December 3, 2025, via teleconference, by Occupational Safety and Health Standards Board (“Board”), with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit, as a basis of proposed decision to be advanced to the Board for its consideration, in accordance with section 426.
2. At the hearing, Peter Cuellar, with Schindler Elevator Corporation, appeared on behalf of the Applicants; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).

¹ Unless otherwise stated, all references are to title 8, California Code of Regulations.

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 variance applications per section A.1 table
PD-2	OSHSB Notice of Hearing
PD-3	Board Staff Reviews of Variance Application
PD-4	Division Reviews of Variance Application
PD-5	Review Draft-1 Proposed Decision

Official notice is taken of the Board’s rulemaking records, and variance decisions concerning the safety order requirements from which variance is requested. At close of hearing on December 3, 2025, the record was closed, and the matter taken under submission by the Hearing Officer.

C. Findings of Fact—Based upon the record of this proceeding, the Board finds the following:

1. Applicant proposes to install new 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, title 8, Elevator Safety Orders, Group IV, section 3141.11, incorporated ASME A17.1-2004, sections 6.1.4.1 regarding limits of escalator speed, and A17.1-2004, section 6.1.6.4, regarding handrail speed. The Division has identified another closely related section 3141.11 incorporated ASME requirement from which variance would be needed, in order to for the escalator system to operate as proposed—ASME A17-1-2004, section 6.1.4.1, regarding escalator speed after start-up.
2. 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.”
3. A 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. The Division 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 regarding the varying the speed of an escalator after start-up. For this reason among others identified within the its Review of Application, the Division 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.
9. 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."*

10. The Division 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 (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, 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."

11. 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.”

12. The Division 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.
13. 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. OSHSB File No. 13-V-153, 15-V-236, 16-V-069), absent, to the Division’s reported knowledge, adverse effect upon passenger or workplace safety or health.
14. Both Division and Board staff recommend 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) Each 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 each Applicant’s proposal, subject to all conditions and limitations set forth in the below Decision and Order, will provide equivalent safety to the Elevator Safety Orders from which variance is being sought.

E. Decision and Order:

The Application of each above section A table identified Applicant, 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 and per the Appendix B designations, shall have permanent variance from the following subparts of ASME A17.1-2004, sections 6.1.4.1., and 6.1.6.4, 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 Exhibit 1 (Detection Distance Sleep Mode Operation) attached hereto and incorporated herein by this reference:

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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/sec^2) [not to exceed 1 ft/sec^2]

- (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 the Division, 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. The Division shall be notified when the escalator is ready for inspection, and the escalator shall be inspected by the Division 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), the Division, or by the Board on its own motion, as allowed by the Board's procedural rules.

Pursuant to section 426(b), the above, duly completed Proposed Decision, is hereby submitted to the Occupational Safety and Health Standards Board for consideration of adoption.

DATED: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

Appendix A
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

$$d = (V_f - V_s) \times \frac{V_w}{a}$$

d Detection distance (ft.)

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

V_f Elevator Rated Speed Escalators with rated speeds of 100 ft./min.

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

V_s Slow Speed[“Sleep mode” Speed] (ft./min.)

V_w Passenger Walking Speed of 4.5 ft./sec.

Appendix B

Permanent Variance is granted as to the below specified escalators, identified by the Applicant assigned designations in effect on the date of Decision and Order adoption:

Variance No.	Escalator ID
25-V-374	01
25-V-374	02
25-V-374	03
25-V-374	04
25-V-374	05
25-V-374	06

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

In the Matter of Application for Permanent Variance Regarding: Schindler Model 3300 Elevators, w/variant Gov. Ropes and Sheaves (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-375	Moonsquare Properties	8333 Clairemont Mesa Blvd 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Pete Cuellar, with SCHINDLER ELEVATOR CORPORATION, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA Elevator Unit HQS

EXHIBIT 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future):
CAL/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering Section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance file number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Schindler Model 5500 Elevator (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-376	California Polytechnic State University	1 Grand Ave. Bldg 175A San Luis Obispo, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Pete Cuellar, with SCHINDLER ELEVATOR CORPORATION, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 2025, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

Requested Suspension Means Related Variance:

1. As each pertains to the non-circular elastomeric coated suspension members characteristic of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following Elevator Safety Order incorporated ASME Safety Code for Elevators and Escalators (ASME Code) A17.1-2004 sections and subsections:
 - Section 2.20.1 - Wire rope suspension means;
 - Section 2.20.2.1 - Crosshead data plate;
 - Subsection 2.20.2.2(a) - Wire rope data tag;
 - Subsection 2.20.2.2(f) - ID of steel wire rope as preformed or nonpreformed;
 - Section 2.20.3 - Wire rope safety factor;
 - Section 2.20.4 - Number and diameter of wire ropes;
 - Section 2.20.9.3.4 - Wire rope end connections;
 - Section 2.20.9.5 - Wire rope sockets;

Requested Car Top Railing Inset Variance:

2. As it pertains to top of car railing placement requiring space occupied by upper hoistway mounted elevator machinery characteristic of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following title 8, Elevator Safety Order incorporated ASME Code A17.1-2004 section:

Section 2.14.1.7.1 - Top of Car Perimeter Railing Placement

Requested Seismic Reset Switch Placement Variance:

3. As it pertains to installation of the requisite seismic reset switch within a "machine room" location incompatible with machine-room-less design of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following title 8, Elevator Safety Order incorporated ASME Code subsection:

Subsection 8.4.10.1.1(a)(2)(b)--Seismic Reset Switch Placement in Machine Room

Requested Transfer Switch Placement Variance:

4. As it pertains to installation of the requisite transfer switch within a "machine room" location incompatible with machine-room-less design of the Schindler Model 5500 elevator, Applicant presently seeks permanent variance from the following title 8, Elevator Safety Order incorporated ASME Code A17.1-2004 subsection:

Subsection 2.26.1.4.4(a)--Transfer Switch Placement in Machine Room

Official Notice and Incorporation by Reference - Permanent Variance No. 15-V-349:

5. Per hereby entered stipulation offered at hearing by Applicant, and Cal/OSHA, concerning preexisting Board records, including decisions in matters of permanent variance from Elevator Safety Order requirements, the Board takes Official Notice and expressly incorporates herein by reference, Permanent Variance No. 15-V-349, Decision and Order adopted November 17, 2016, section D.1 - D.75 findings, and therein entered record upon which it was based.

Positions of Cal/OSHA:

6. Having fully reviewed Applicant's request for variance from the above identified Elevator Safety Order requirements, it is the opinion of Cal/OSHA, that conditionally limited grant to Applicant of permanent variance as specified per the below Decision and Order, will provide for elevator safety, and occupational safety and health, equivalent or superior to that of the Elevator Safety Order requirements from which variance is being sought. The present opinion of Cal/OSHA, to any extent it may vary from those previously held with respect to the previously heard matter in Permanent Variance No. 15-V-349, reflects further scrutiny of the subject matter, consultation between Cal/OSHA, Applicant representatives, and refinement of recommended conditions and limitations.

D. Conclusive Findings

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

E. Decision and Order

Applicant is hereby conditionally GRANTED Permanent Variance as stated below, to the limited extent that each enumerated conveyance at the given location shall be subject to conditionally limited permanent variance from the below specified ASME A17.1-2004, requirements incorporated by reference into section 3141.

Suspension Members: Applicant shall conditionally hold permanent variance from the following section 3141 incorporated sections and subsections of ASME A17.1-2004, to the limited extent variance is necessary to provide for use of noncircular elastomeric- coated steel suspension members and concomitant components, and configurations - section 2.20.1; section 2.20.2.1; subsection 2.20.2.2(a); subsection 2.20.2.2(f); section 2.20.3; section 2.20.4; section 2.20.9.3.4; and section 2.20.9.5.4.

Inspection Transfer Switch: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section of ASME A17.1-2004, to the extent variance is necessary to having the requisite inspection transfer switch located elsewhere than a machine room, within a Security Group I enclosure built into an upper floor landing door jam, or within other readily accessible and secure space shared with the motion controller outside the hoistway: section 2.26.1.4.4(a).

Seismic Safety Switch Placement: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section of ASME A17.1-2004, to the limited extent variance is necessary to having the requisite seismic reset switch located elsewhere than a machine room, within a Security Group I enclosure built into an upper floor landing door jam, or within other readily accessible and secure space shared with the motion controller outside the hoistway: section 8.4.10.1.1(a)(2)(b).

Car Top Railing: Applicant shall conditionally hold permanent variance from certain requirements of the following section 3141 incorporated section of ASME A17.1-2004, to the limited extent variance is necessary to provide for the below specified inseting of the subject elevator's top of car railing: section 2.14.1.7.1.

Further Conditions and Limitations:

1. The elevator suspension system shall comply with the following:

1.1. The suspension traction media (STM) members and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:

- Section 2.20.4.3 - Minimum Number of Suspension Members
- Section 2.20.3 - Factor of Safety
- Section 2.20.9 - Suspension Member Fastening

1.2. Additionally, STMs shall meet or exceed all requirements of ASME A17.6-2010 Standard for Elevator Suspension, Compensation, and Governor Systems, Part 3, Noncircular Elastomeric Coated Steel Suspension Members for Elevators.

1.3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the STM members and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

1.4. STM member mandatory replacement criteria shall include:

1.4.1 Any exposed wire, strand or cord;

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

1.4.3 Any evidence of rouging (steel tension element corrosion) on any part of the

elastomeric coated steel suspension member;

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

1.5. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.

1.6. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: If a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.

1.7. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.

1.8. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).

1.9. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. Notwithstanding any less frequent periodic testing requirement per Addendum 1 (Cal/OSHA Circular Letter), the bend cycle monitoring system shall be tested semi-annually in accordance with the procedures required per above Conditions 1.2, and 1.3.

1.10. Each elevator shall be provided with a device that electronically detects a reduction in residual strength of each STM member. The device shall be in compliance with Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Addendum 1, and incorporated herein by reference.

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

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

1.13. Comprehensive visual inspections of the entire length of each and all installed suspension members, in conformity with above Conditions 1.2 and 1.3 specified criteria, shall be conducted and documented every six months by a CCCM.

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

1.15. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.

2. Inspection Transfer switch and Seismic Reset switch placement and enclosure shall comply with the following:

2.1. If the inspection transfer switch required by ASME A17.1-2004, Rule 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

2.2. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

3. Any and all inset car top railing shall comply with the following:

3.1. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to stand on or climb over the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car top railing.

3.2. The distance that the railing can be inset shall be limited to not more than 12 inches.

3.3. All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.

3.4. The top surface of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.

3.5. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing; each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

3.6. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required

bevel).

4. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by CCCM having been trained, and competent, to perform those tasks on the Schindler Model 5500 elevator system in accordance with written procedures and criteria, including as required per above Conditions 1.2, and 1.3.
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. 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.
7. This Decision and Order shall remain in effect unless modified or revoked upon application by Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 15, 2025



Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-377	3001 Iowa Owner LLC	Iowa Avenue Apartments, Building 1 3119 Iowa Ave. Riverside, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 500 Elevators (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-378	RSF Old Course Road, LLC	16202 Sunny Summit Drive 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 500 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.

7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
14. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-378	2A	8	200	3,500
25-V-378	2B	8	200	3,500

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 500 Elevators (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-379	Bryan Elsey, Owner 716 Seagaze LLC	712 Seagaze Dr Oceanside, CA	4

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

B. Procedural

1. This hearing was held on December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 500 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.

7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to sections 411.2 and 411.3.
14. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-379	1	8	200	13,207
25-V-379	2	6	200	9,905
25-V-379	3	8	200	13,207
25-V-379	4	5	200	8,254

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-380	3001 Iowa Owner LLC	Iowa Avenue Apartments Building 2 3139 Iowa Avenue Riverside, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-381	3001 Iowa Owner LLC	Iowa Avenue Apartments Building 3 3079 Iowa Avenue Riverside, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-382	8500 WH, LLC	8500 Santa Monica Blvd. West Hollywood, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

A handwritten signature in dark ink, reading "Michelle Iorio", written in a cursive style. The signature is positioned above a horizontal line.

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Medical Emergency Elevator Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-383	Amvina LLC	10382 Bolsa Ave Westminster, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; 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 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: December 16, 2025



Michelle Iorio, Hearing Officer

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

In the Matter of Application for Permanent Variance Regarding: Otis Medical Emergency Elevator Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-384	City of Ontario	Ontario Sports Complex - South Bldg. A 2055 E. Chino Ave. Ontario, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 16, 2025



Michelle Iorio, Hearing Officer

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-385	Bank of America	8301 Fletcher Parkway La Mesa, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top

railing is inset);

- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Medical Emergency Elevator Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-386	City of Ontario	3083 S. Vineyard Ave. Ontario, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 16, 2025



Michelle Iorio, Hearing Officer

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-387	69th Street Apartments LP	6711 Folsom Blvd. Sacramento, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top

railing is inset);

- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-388	MirKa Investments, LLC	2136 South El Camino Oceanside, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top

railing is inset);

- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Medical Emergency Elevator Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-389	Moonridge Hotel LLC	42172 Moonridge Rd. Big Bear Lake, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 16, 2025



Michelle Iorio, Hearing Officer

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

In the Matter of Application for Permanent Variance Regarding: Otis Medical Emergency Elevator Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-390	Replay Healdsburg LLC	191 Sawmill Circle 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 16, 2025



Michelle Iorio, Hearing Officer

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-391	San Jose Monterey Pacific Associates, A California Limited Partnership	Monterey Road Apartments 4300 Monterey Rd. San Jose, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 23, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Medical Emergency Elevator Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-392	Siskiyou Hospital, Inc. d.b.a. Fairchild Medical Center	444 Bruce St. Yreka, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 16, 2025



Michelle Iorio, Hearing Officer

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-393	Trinidad LLC	12534 San Fernando Rd. Los Angeles, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-394	Google, LLC	1300 Bayhill Dr. San Bruno, CA	9

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 Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top

railing is inset);

- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-395	Google, LLC	Google SBO North Building 1350 Grundy Lane San Bruno, CA	7

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 Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025


A handwritten signature in dark ink, reading "Michelle Iorio", is positioned above a horizontal line.

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-396	San Francisco Airport	C4C 450 Upper Domestic Loop San Francisco, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Medical Emergency Elevator Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-397	Community Medical Centers, Inc.	701 E. Weber Ave. Stockton, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 16, 2025



Michelle Iorio, Hearing Officer

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

In the Matter of Application for Permanent Variance Regarding: Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations¹, as follows:

Variance No.	Applicant Name	Variance Location Address	No. of Elevators
25-V-398	VS Phase 2 LP	339 Marcos St San Marcos, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational and Safety Health Standard 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, Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Peter Cuellar with Schindler Elevator Corporation appeared on behalf of each Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

¹ Unless otherwise noted, references are to the California Code of Regulations, title 8.

Exhibit Number	Description of Exhibit
PD-1	Permanent variance applications per section A.1 table
PD-2	OSHSB Notice of Hearing
PD-3	Cal/OSHA Review of variance application
PD-4	Review Draft-1 of Proposed Decision

4. Official notice 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.

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, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(B), 2.14.1.7.1, and 2.26.9.6.1]. The relevant language of those sections are below.

Suspension Means

Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process, or their equivalent.

Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(b) the diameter in millimeters (mm) or inches (in.)

Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:

A metal data tag shall be securely attached-to-one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[...]

(f) whether the ropes were non preformed or preformed

Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{S \times N}{W}$$

where:

N= number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S= manufacturer's rated breaking strength of one rope

W= maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:

Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:

When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire-rope retaining clips shall be provided to attach the termination side to the load-carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

Inspection Transfer Switch

Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:

When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be

(a) located in the machine room[.]

Seismic Reset Switch

Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

Car-top Railings

Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:

A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

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.

C. Findings of Fact

1. Each Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations, specified per the above Section A.1 table.
2. The installation contract for these 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. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders (ESO). 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. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
7. Applicant proposes to insert the car-top railings at the perimeter of the car top.
8. Applicant intends to use an elevator control system, model CO NX100NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. 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 being 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 to 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);
- 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 and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria

available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

STM member mandatory replacement criteria shall include:

- i. Any exposed wire, strand or cord;
 - ii. Any wire, strand or cord breaks through the elastomeric coating;
 - iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric-coated steel suspension member;
 - iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;
- c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.
- d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.
- e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.
- f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).
- g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.
- h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

- i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.
 - j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.
 - k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.
 - l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, "Suspension Means Replacement Reporting Condition," Incorporated herein by this reference.
 - m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.
2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 4. If there is an inset car-top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car-top railing.
 - b. The distance that the railing can be inset shall be limited to not more than 6 inches.
 - c. All exposed areas of the car top outside the car-top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
 - d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4-inch diagonal red and white stripes.

- e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- f. The Group IV requirements for car-top clearances shall be maintained (car-top clearances outside the railing will be measured from the car top and not from the required bevel).
5. The SIL-rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:
- a. The SIL-rated devices and circuits shall consist of a Variodyn SIL-3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013 or VAF023, 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.
6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per California Code of Regulations, sections 411.2 and 411.3.
8. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

EXHIBIT 2

Suspension Means – Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and PERMANENT VARIANCE NO. 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.

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

In the Matter of Application for Permanent Variance Regarding: Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations¹, as follows:

Variance No.	Applicant Name	Variance Location Address	No. of Elevators
25-V-399	RAFA LA Development LLC	1833 N Garey Ave Pomona, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational and Safety Health Standard 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, Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Peter Cuellar with Schindler Elevator Corporation appeared on behalf of each Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

¹ Unless otherwise noted, references are to the California Code of Regulations, title 8.

Exhibit Number	Description of Exhibit
PD-1	Permanent variance applications per section A.1 table
PD-2	OSHSB Notice of Hearing
PD-3	Cal/OSHA Review of variance application
PD-4	Review Draft-1 of Proposed Decision

4. Official notice 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.

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, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(B), 2.14.1.7.1, and 2.26.9.6.1]. The relevant language of those sections are below.

Suspension Means

Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process, or their equivalent.

Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(b) the diameter in millimeters (mm) or inches (in.)

Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:

A metal data tag shall be securely attached-to-one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[...]

(f) whether the ropes were non preformed or preformed

Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{S \times N}{W}$$

where:

N= number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S= manufacturer's rated breaking strength of one rope

W= maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:

Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:

When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire-rope retaining clips shall be provided to attach the termination side to the load-carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

Inspection Transfer Switch

Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:

When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be

(a) located in the machine room[.]

Seismic Reset Switch

Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

Car-top Railings

Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:

A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

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.

C. Findings of Fact

1. Each Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations, specified per the above Section A.1 table.
2. The installation contract for these 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. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders (ESO). 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. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
7. Applicant proposes to insert the car-top railings at the perimeter of the car top.
8. Applicant intends to use an elevator control system, model CO NX100NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. 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 being 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 to 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);
- 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 and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria

available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

STM member mandatory replacement criteria shall include:

- i. Any exposed wire, strand or cord;
 - ii. Any wire, strand or cord breaks through the elastomeric coating;
 - iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric-coated steel suspension member;
 - iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;
- c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.
- d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.
- e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.
- f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).
- g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.
- h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

- i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.
 - j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.
 - k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.
 - l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, "Suspension Means Replacement Reporting Condition," Incorporated herein by this reference.
 - m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.
2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 4. If there is an inset car-top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car-top railing.
 - b. The distance that the railing can be inset shall be limited to not more than 6 inches.
 - c. All exposed areas of the car top outside the car-top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
 - d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4-inch diagonal red and white stripes.

- e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- f. The Group IV requirements for car-top clearances shall be maintained (car-top clearances outside the railing will be measured from the car top and not from the required bevel).
5. The SIL-rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:

- a. The SIL-rated devices and circuits shall consist of a Variodyn SIL-3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013 or VAF023, 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.
6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per California Code of Regulations, sections 411.2 and 411.3.
8. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

EXHIBIT 2

Suspension Means – Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and PERMANENT VARIANCE NO. 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.

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

In the Matter of Application for Permanent Variance Regarding: Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations¹, as follows:

Variance No.	Applicant Name	Variance Location Address	No. of Elevators
25-V-400	The Park Theater Trust	3519 Golden Gate Way Lafayette, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational and Safety Health Standard 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, Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Peter Cuellar with Schindler Elevator Corporation appeared on behalf of each Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

¹ Unless otherwise noted, references are to the California Code of Regulations, title 8.

Exhibit Number	Description of Exhibit
PD-1	Permanent variance applications per section A.1 table
PD-2	OSHSB Notice of Hearing
PD-3	Cal/OSHA Review of variance application
PD-4	Review Draft-1 of Proposed Decision

4. Official notice 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.

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, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(B), 2.14.1.7.1, and 2.26.9.6.1]. The relevant language of those sections are below.

Suspension Means

Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process, or their equivalent.

Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(b) the diameter in millimeters (mm) or inches (in.)

Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:

A metal data tag shall be securely attached-to-one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[...]

(f) whether the ropes were non preformed or preformed

Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{S \times N}{W}$$

where:

N= number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S= manufacturer's rated breaking strength of one rope

W= maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:

Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:

When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire-rope retaining clips shall be provided to attach the termination side to the load-carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

Inspection Transfer Switch

Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:

When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be

(a) located in the machine room[.]

Seismic Reset Switch

Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

Car-top Railings

Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:

A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

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.

C. Findings of Fact

1. Each Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations, specified per the above Section A.1 table.
2. The installation contract for these 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. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders (ESO). 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. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
7. Applicant proposes to insert the car-top railings at the perimeter of the car top.
8. Applicant intends to use an elevator control system, model CO NX100NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. 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 being 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 to 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);
- 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 and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria

available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

STM member mandatory replacement criteria shall include:

- i. Any exposed wire, strand or cord;
 - ii. Any wire, strand or cord breaks through the elastomeric coating;
 - iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric-coated steel suspension member;
 - iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;
- c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.
- d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.
- e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.
- f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).
- g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.
- h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

- i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.
 - j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.
 - k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.
 - l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, "Suspension Means Replacement Reporting Condition," Incorporated herein by this reference.
 - m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.
2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
4. If there is an inset car-top railing:
- a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car-top railing.
 - b. The distance that the railing can be inset shall be limited to not more than 6 inches.
 - c. All exposed areas of the car top outside the car-top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
 - d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4-inch diagonal red and white stripes.

- e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- f. The Group IV requirements for car-top clearances shall be maintained (car-top clearances outside the railing will be measured from the car top and not from the required bevel).
5. The SIL-rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:
- a. The SIL-rated devices and circuits shall consist of a Variodyn SIL-3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013 or VAF023, 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.
6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per California Code of Regulations, sections 411.2 and 411.3.
8. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

EXHIBIT 2

Suspension Means – Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and PERMANENT VARIANCE NO. 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.

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

In the Matter of Application for Permanent Variance Regarding: Schindler Model 3300 Elevators, w/variant Gov. Ropes and Sheaves (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-401	3104 Third LLC	3104 Third Ave. San Diego, CA	1

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

B. Procedural

1. This hearing was held on December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Pete Cuellar, with SCHINDLER ELEVATOR CORPORATION, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA Elevator Unit HQS

EXHIBIT 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future):
CAL/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering Section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance file number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations¹, as follows:

Variance No.	Applicant Name	Variance Location Address	No. of Elevators
25-V-402	Postmaster Group LLC	700 N Virgil Ave Los Angeles, CA	2

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational and Safety Health Standard 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, Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Peter Cuellar with Schindler Elevator Corporation appeared on behalf of each Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

¹ Unless otherwise noted, references are to the California Code of Regulations, title 8.

Exhibit Number	Description of Exhibit
PD-1	Permanent variance applications per section A.1 table
PD-2	OSHSB Notice of Hearing
PD-3	Cal/OSHA Review of variance application
PD-4	Review Draft-1 of Proposed Decision

4. Official notice 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.

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, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(B), 2.14.1.7.1, and 2.26.9.6.1]. The relevant language of those sections are below.

Suspension Means

Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process, or their equivalent.

Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(b) the diameter in millimeters (mm) or inches (in.)

Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:

A metal data tag shall be securely attached-to-one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[...]

(f) whether the ropes were non preformed or preformed

Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{S \times N}{W}$$

where:

N= number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S= manufacturer's rated breaking strength of one rope

W= maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:

Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:

When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire-rope retaining clips shall be provided to attach the termination side to the load-carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

Inspection Transfer Switch

Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:

When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be

(a) located in the machine room[.]

Seismic Reset Switch

Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

Car-top Railings

Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:

A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

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.

C. Findings of Fact

1. Each Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations, specified per the above Section A.1 table.
2. The installation contract for these 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. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders (ESO). 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. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
7. Applicant proposes to insert the car-top railings at the perimeter of the car top.
8. Applicant intends to use an elevator control system, model CO NX100NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. 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 being 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 to 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);
- 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 and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria

available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

STM member mandatory replacement criteria shall include:

- i. Any exposed wire, strand or cord;
 - ii. Any wire, strand or cord breaks through the elastomeric coating;
 - iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric-coated steel suspension member;
 - iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;
- c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.
- d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.
- e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.
- f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).
- g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.
- h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

- i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.
 - j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.
 - k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.
 - l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, "Suspension Means Replacement Reporting Condition," Incorporated herein by this reference.
 - m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.
2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
4. If there is an inset car-top railing:
- a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car-top railing.
 - b. The distance that the railing can be inset shall be limited to not more than 6 inches.
 - c. All exposed areas of the car top outside the car-top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
 - d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4-inch diagonal red and white stripes.

- e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- f. The Group IV requirements for car-top clearances shall be maintained (car-top clearances outside the railing will be measured from the car top and not from the required bevel).
5. The SIL-rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:
- a. The SIL-rated devices and circuits shall consist of a Variodyn SIL-3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013 or VAF023, 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.
6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per California Code of Regulations, sections 411.2 and 411.3.
8. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

EXHIBIT 2

Suspension Means – Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and PERMANENT VARIANCE NO. 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.

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

In the Matter of Application for Permanent Variance Regarding: Schindler Model 3300 Elevators, w/variant Gov. Ropes and Sheaves (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-403	LS Hotel 3, LLC	2220 Lee Court San Diego, CA	1

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

B. Procedural

1. This hearing was held on December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Pete Cuellar, with SCHINDLER ELEVATOR CORPORATION, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 CCCM.
 - l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, "Suspension Means Replacement Reporting Condition," Incorporated herein by this reference.
 - m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1 2004, sections 8.6.1.2 and 8.6.1.4, respectively.
2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 4. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The

Applicant shall not permit anyone to stand or climb over the car top railing.

- b. The distance that the railing can be inset shall be limited to not more than 6 inches.
- c. All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
- d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
- e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).

5. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a steel 6 mm (0.25 in.) diameter governor rope with 6 strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 200 mm (7.87 in.).

6. The SIL rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:

- a. The SIL-rated devices and circuits shall consist of a Variodyn SIL3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013, VAF023, or VAF043 labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/FSP 1556.00), and followed by the applicable revision number (as in 968/FSP 1556.00/19).
- b. The devices and circuits shall be certified for compliance with the applicable requirements of ASME A17.1-2013, section 2.26.4.3.2.
- c. The access door or cover of the enclosures containing the SIL rated components shall be clearly labeled or tagged on their exterior with the statement:

Assembly contains SIL rated devices.

**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: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA Elevator Unit HQS

EXHIBIT 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future):
CAL/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering Section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance file number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations¹, as follows:

Variance No.	Applicant Name	Variance Location Address	No. of Elevators
25-V-404	LS Hotel 3, LLC	2220 Lee Court San Diego, CA	2

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational and Safety Health Standard 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, Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Peter Cuellar with Schindler Elevator Corporation appeared on behalf of each Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

¹ Unless otherwise noted, references are to the California Code of Regulations, title 8.

Exhibit Number	Description of Exhibit
PD-1	Permanent variance applications per section A.1 table
PD-2	OSHSB Notice of Hearing
PD-3	Cal/OSHA Review of variance application
PD-4	Review Draft-1 of Proposed Decision

4. Official notice 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.

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, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(B), 2.14.1.7.1, and 2.26.9.6.1]. The relevant language of those sections are below.

Suspension Means

Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process, or their equivalent.

Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(b) the diameter in millimeters (mm) or inches (in.)

Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:

A metal data tag shall be securely attached-to-one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[...]

(f) whether the ropes were non preformed or preformed

Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{S \times N}{W}$$

where:

N= number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S= manufacturer's rated breaking strength of one rope

W= maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:

Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:

When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire-rope retaining clips shall be provided to attach the termination side to the load-carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

Inspection Transfer Switch

Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:

When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be

(a) located in the machine room[.]

Seismic Reset Switch

Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

Car-top Railings

Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:

A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

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.

C. Findings of Fact

1. Each Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations, specified per the above Section A.1 table.
2. The installation contract for these 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. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders (ESO). 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. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
7. Applicant proposes to insert the car-top railings at the perimeter of the car top.
8. Applicant intends to use an elevator control system, model CO NX100NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. 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 being 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 to 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);
- 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 and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria

available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

STM member mandatory replacement criteria shall include:

- i. Any exposed wire, strand or cord;
 - ii. Any wire, strand or cord breaks through the elastomeric coating;
 - iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric-coated steel suspension member;
 - iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;
- c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.
- d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.
- e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.
- f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).
- g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.
- h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

- i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.
 - j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.
 - k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.
 - l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, "Suspension Means Replacement Reporting Condition," Incorporated herein by this reference.
 - m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.
2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 4. If there is an inset car-top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car-top railing.
 - b. The distance that the railing can be inset shall be limited to not more than 6 inches.
 - c. All exposed areas of the car top outside the car-top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
 - d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4-inch diagonal red and white stripes.

- e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- f. The Group IV requirements for car-top clearances shall be maintained (car-top clearances outside the railing will be measured from the car top and not from the required bevel).
5. The SIL-rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:
- a. The SIL-rated devices and circuits shall consist of a Variodyn SIL-3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013 or VAF023, 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.
6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per California Code of Regulations, sections 411.2 and 411.3.
8. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

EXHIBIT 2

Suspension Means – Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and PERMANENT VARIANCE NO. 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.

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

In the Matter of Application for Permanent Variance Regarding: Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations¹, as follows:

Variance No.	Applicant Name	Variance Location Address	No. of Elevators
25-V-405	101 Housing Partners LP	101 E. Pacific Coast Highway Long Beach, CA	1

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational and Safety Health Standard 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, Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Peter Cuellar with Schindler Elevator Corporation appeared on behalf of each Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

¹ Unless otherwise noted, references are to the California Code of Regulations, title 8.

Exhibit Number	Description of Exhibit
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PD-2	OSHSB Notice of Hearing
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PD-4	Review Draft-1 of Proposed Decision

4. Official notice 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.

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, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(B), 2.14.1.7.1, and 2.26.9.6.1]. The relevant language of those sections are below.

Suspension Means

Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process, or their equivalent.

Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(b) the diameter in millimeters (mm) or inches (in.)

Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:

A metal data tag shall be securely attached to one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[...]

(f) whether the ropes were non preformed or preformed

Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{S \times N}{W}$$

where:

N= number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S= manufacturer's rated breaking strength of one rope

W= maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:

Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:

When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire-rope retaining clips shall be provided to attach the termination side to the load-carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

Inspection Transfer Switch

Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:

When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be

(a) located in the machine room[.]

Seismic Reset Switch

Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

Car-top Railings

Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:

A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

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.

C. Findings of Fact

1. Each Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations, specified per the above Section A.1 table.
2. The installation contract for these 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. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders (ESO). 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. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
7. Applicant proposes to insert the car-top railings at the perimeter of the car top.
8. Applicant intends to use an elevator control system, model CO NX100NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. 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 being 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 to 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);
- 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 and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

STM member mandatory replacement criteria shall include:

- i. Any exposed wire, strand or cord;
 - ii. Any wire, strand or cord breaks through the elastomeric coating;
 - iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric-coated steel suspension member;
 - iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;
- c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.
- d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.
- e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.
- f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).
- g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.
- h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

- i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.
 - j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.
 - k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.
 - l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, "Suspension Means Replacement Reporting Condition," Incorporated herein by this reference.
 - m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.
2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
4. If there is an inset car-top railing:
- a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car-top railing.
 - b. The distance that the railing can be inset shall be limited to not more than 6 inches.
 - c. All exposed areas of the car top outside the car-top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
 - d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4-inch diagonal red and white stripes.

- e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- f. The Group IV requirements for car-top clearances shall be maintained (car-top clearances outside the railing will be measured from the car top and not from the required bevel).
5. The SIL-rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:
- a. The SIL-rated devices and circuits shall consist of a Variodyn SIL-3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013 or VAF023, 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.
6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per California Code of Regulations, sections 411.2 and 411.3.
8. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

EXHIBIT 2

Suspension Means – Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and PERMANENT VARIANCE NO. 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.

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

In the Matter of Application for Permanent Variance Regarding: Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations¹, as follows:

Variance No.	Applicant Name	Variance Location Address	No. of Elevators
25-V-406	BRIDGE New Hampshire, LP	711 S. New Hampshire Ave. Los Angeles, CA	2

2. This proceeding is conducted in accordance with Labor Code section 143 and section 401, et seq. of the Occupational and Safety Health Standard 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, Michelle Iorio, both presiding and hearing the matter on its merit in accordance with section 426.
2. At the hearing, Peter Cuellar with Schindler Elevator Corporation appeared on behalf of each Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

¹ Unless otherwise noted, references are to the California Code of Regulations, title 8.

Exhibit Number	Description of Exhibit
PD-1	Permanent variance applications per section A.1 table
PD-2	OSHSB Notice of Hearing
PD-3	Cal/OSHA Review of variance application
PD-4	Review Draft-1 of Proposed Decision

4. Official notice 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.

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, 2.20.9.5.4, 2.26.1.4.4(a), 8.4.10.1.1(a)(2)(B), 2.14.1.7.1, and 2.26.9.6.1]. The relevant language of those sections are below.

Suspension Means

Section 3141 [ASME A17.1-2004, section 2.20.1, Suspension Means] states in part:

Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused. Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process, or their equivalent.

Section 3141 [ASME A17.1-2004, section 2.20.2.1(b), On Crosshead Data Plate] states in part:

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(b) the diameter in millimeters (mm) or inches (in.)

Section 3141 [ASME A17.1-2004, section 2.20.2.2(a) and (f) On Rope Data Tag] states in part:

A metal data tag shall be securely attached to one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[...]

(f) whether the ropes were non preformed or preformed

Section 3141 [ASME A17.1-2004, section 2.20.3, Factor of Safety] states:

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{S \times N}{W}$$

where:

N= number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S= manufacturer's rated breaking strength of one rope

W= maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Section 3141 [ASME A17.1-2004, section 2.20.4, Minimum Number and Diameter of Suspension Ropes] states:

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Section 3141 [ASME A17.1-2004, section 2.20.9.3.4] states:

Cast or forged steel rope sockets, shackle rods, and their connections shall be made of unwelded steel, having an elongation of not less than 20% in a gauge length of 50 mm (2 in.), when measured in accordance with ASTM E 8, and conforming to ASTM A 668, Class B for forged steel, and ASTM A 27, Grade 60/30 for cast steel, and shall be stress relieved. Steels of greater strength shall be permitted, provided they have an elongation of not less than 20% in a length of 50 mm (2 in.).

Section 3141 [ASME A17.1-2004, section 2.20.9.5.4] states:

When the rope has been seated in the wedge socket by the load on the rope, the wedge shall be visible, and at least two wire-rope retaining clips shall be provided to attach the termination side to the load-carrying side of the rope (see Fig. 2.20.9.5). The first clip shall be placed a maximum of 4 times the rope diameter above the socket, and the second clip shall be located within 8 times the rope diameter above the first clip. The purpose of the two clips is to retain the wedge and prevent the rope from slipping in the socket should the load on the rope be removed for any reason. The clips shall be designed and installed so that they do not distort or damage the rope in any manner.

Inspection Transfer Switch

Section 3141[ASME A17.1-2004, section 2.26.1.4.4(a), Machine Room Inspection Operation] states:

When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be

(a) located in the machine room[.]

Seismic Reset Switch

Section 3141[ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b), Earthquake Equipment] states:

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room

Car-top Railings

Section 3141[ASME A17.1-2004, section 2.14.1.7.1] states:

A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance.

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.

C. Findings of Fact

1. Each Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations, specified per the above Section A.1 table.
2. The installation contract for these 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. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders (ESO). 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.
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7. Applicant proposes to insert the car-top railings at the perimeter of the car top.
8. Applicant intends to use an elevator control system, model CO NX100NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. 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 being 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 to 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);
- 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 and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

STM member mandatory replacement criteria shall include:

- i. Any exposed wire, strand or cord;
 - ii. Any wire, strand or cord breaks through the elastomeric coating;
 - iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric-coated steel suspension member;
 - iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;
- c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.
- d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.
- e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.
- f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).
- g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.
- h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

- i. The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.
 - j. A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.
 - k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.
 - l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, "Suspension Means Replacement Reporting Condition," Incorporated herein by this reference.
 - m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.
2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 4. If there is an inset car-top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car-top railing.
 - b. The distance that the railing can be inset shall be limited to not more than 6 inches.
 - c. All exposed areas of the car top outside the car-top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
 - d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4-inch diagonal red and white stripes.

- e. The applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing. Each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- f. The Group IV requirements for car-top clearances shall be maintained (car-top clearances outside the railing will be measured from the car top and not from the required bevel).
5. The SIL-rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:
- a. The SIL-rated devices and circuits shall consist of a Variodyn SIL-3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013 or VAF023, 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.
6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service prior to the Permit to Operate being issued by Cal/OSHA.
7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per California Code of Regulations, sections 411.2 and 411.3.
8. This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

EXHIBIT 2

Suspension Means – Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings. Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and PERMANENT VARIANCE NO. 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.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-407	State of California	New Capitol Annex Building 1315 10th Street Sacramento, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-408	Roseville Senior Affordable 2 LP	Amenities Building 4201 Santucci Blvd. Roseville, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-408	1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-409	Roseville Senior Affordable 2 LP	Building 2 4201 Santucci Blvd. Roseville, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-409	1	7	150	12,247
25-V-409	2	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-410	DOCS Surgical Hospital	6000 San Vicente Blvd. Los Angeles, CA	4

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

B. Procedural

1. This hearing was held on December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top

railing is inset);

- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 15, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-412	La Jolla Country Day School	9490 Genesee Ave. La Jolla, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top

railing is inset);

- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-413	Montclair Station Apartments, LLC	Montclair Station Bldg. 1 4807 Willow Way Montclair, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-414	Montclair Station Apartments, LLC	Montclair Station Building No. 14 4759 Willow Way Montclair, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-415	Montclair Station Apartments, LLC	Montclair Station Building No. 17 4803 Willow Way Montclair, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-416	Sutter Valley Hospitals	1800 Coffee Road Modesto, CA	4

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

B. Procedural

1. This hearing was held on December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top

railing is inset);

- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-417	The Arizona/Third Street Partnership, A CA LP	10978 W Wilkins 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top

railing is inset);

- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Medical Emergency Elevator Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-418	Valley Transportation Authority	Story Station 2690 Story Road San Jose, CA	

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

B. Procedural

1. This hearing was held on December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 16, 2025



Michelle Iorio, Hearing Officer

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-419	North Capitol Property Owner LLC	905 N. Capitol Avenue San Jose, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top

railing is inset);

- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-420	VK Central LLC	515 N. Central Avenue Glendale, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top

railing is inset);

- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-421	1701 San Pablo LP	1701 San Pablo Avenue Berkeley, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-422	Sunnydale Block 7 Housing Partners, LP	1501 Sunnydale Avenue San Francisco, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-423	Harmony Senior Apartments, LP	11410 W. Burbank Blvd. Los Angeles, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-424	MP Midway Associates 2, LP	8 Partridge Street Daly City, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top

railing is inset);

- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

A handwritten signature in dark ink, reading "Michelle Iorio", written in a cursive style. The signature is positioned above a horizontal line.

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-425	Jacmar Partners III, LLC	6066 W. Olympic Blvd. Los Angeles, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top

railing is inset);

- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-426	Brookes Avenue San Diego, LLC	360 Brookes Avenue 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top

railing is inset);

- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
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 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-427	Rose Hill Courts II Housing Partners, LP	Rose Hill Court Phase 2- Building C 3520 N. Boundary Avenue 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing

PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: Otis Gen2S/Gen3Edge/Gen3 Core Elevator & Medical Emergency Car Dimensions	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-428	School Site SPE LLC	Promenade Village Building 11 11100 Encanto Irvine, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Dan Leacox, with Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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/Gen3 Core elevators at the locations and in the numbers stated in the above section A.1 table. Applicant may utilize the variance from minimum inside car platform dimensions for other elevators designated for emergency medical service at the same variance location.
2. The installation contracts for these elevators were or will be signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders.
3. The Board incorporates by reference the relevant findings in previous Board decisions:
 - a. Items D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 for Permanent Variance No. 12-V-093;
 - b. Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 for Permanent Variance No. 14-V-206;
 - c. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for Permanent Variance No. 22-V-302 regarding medical emergency car dimensions; and
 - d. Items C and D of the Proposed Decision adopted by the Board on June 20, 2024 for Permanent Variance No. 24-V-193 regarding the Gen3 Core elevator equivalent safety.
4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- **Car top railing:** sections 2.14.1.7.1 (to permit an inset car top railing, if, in fact, the car top railing is inset);
- **Speed governor over-speed switch:** 2.18.4.2.5(a) (to permit the use of the speed reducing system proposed by the Applicants, where the speed reducing switch resides in the controller algorithms, rather than on the governor, with the necessary speed input supplied by the main encoder signal from the motor);
- **Governor rope diameter:** 2.18.5.1 (to allow the use of reduced diameter governor rope);
- **Pitch diameter:** 2.18.7.4 (to permit the use of the speed-reducing system proposed by the Applicant, where the rope sheave pitch diameter is not less than 180 mm [7.1 in.]);
- **Suspension means:** 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these “suspension means” provisions to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- **Inspection transfer switch:** 2.26.1.4.4(a) (to allow the inspection transfer switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room); and
- **Seismic reset switch:** 8.4.10.1.1(a)(2)(b) (to allow the seismic reset switch to reside at a location other than a machine room, if, in fact, it does not reside in the machine room).
- **Minimum Inside Car Platform Dimensions:** 3041(e)(1)(C) and 3141.7(b) (to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

These variances apply to the locations and numbers of elevators stated in the section A table (so long as the elevators are Gen3 Edge/Gen2S Group and Gen3 Core & Medical Emergency Elevator Car Dimensions (Group IV) that are designed, equipped, and installed in accordance with, and are otherwise consistent with, and are subject to the following conditions:

1. The suspension system shall comply with the following:
 - a. The coated steel belt and connections shall have factors of safety equal to those permitted for use by section 3141 [ASME A17.1-2004, section 2.20.3] on wire rope suspended elevators.
 - b. Steel coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device’s functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.

2. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, the substance of which is attached hereto as Addendum 1 and incorporated herein by this reference.
3. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device and criteria for belt replacement, and the applicant shall make those procedures and criteria available to Cal/OSHA upon request.
4. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person or organization that installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts; and
 - g. Lubrication information.
5. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts;
 - b. The belt width and thickness in millimeters or inches; and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
6. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
7. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs or inspections. The applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset shall be limited to no more than 6 inches.
 - c. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4 inch diagonal red and white stripes.
 - e. The applicant shall provide durable signs with lettering not less than ½ inch on a

contrasting background on each inset railing; each sign shall state:

**CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING**

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top and not from the required bevel).
- 8. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a) does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 10. When the inspection and testing panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 11. The governor speed-reducing switch function shall comply with the following:
 - a. It shall be used only with direct drive machines; i.e., no gear reduction is permitted between the drive motor and the suspension means.
 - b. The velocity encoder shall be coupled to the driving machine motor shaft. The “C” channel of the encoder shall be utilized for velocity measurements required by the speed reducing system. The signal from “C” channel of the encoder shall be verified with the “A” and “B” channels for failure. If a failure is detected then an emergency stop shall be initiated.
 - c. Control system parameters utilized in the speed-reducing system shall be held in non-volatile memory.
 - d. It shall be used in conjunction with approved car-mounted speed governors only.
 - e. It shall be used in conjunction with an effective traction monitoring system that detects a loss of traction between the driving sheave and the suspension means. If a loss of traction is detected, then an emergency stop shall be initiated.
 - f. A successful test of the speed-reducing switch system’s functionality shall be conducted at least once a year (the record of the annual test of the speed-reducing switch system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - g. A successful test of the traction monitoring system’s functionality shall be conducted at least once a year (the record of the annual test of the traction monitoring system shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - h. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the maintenance, inspection, and testing of the speed-reducing switch and traction monitoring systems. The Applicant shall make the procedures available to Cal/OSHA upon

request.

12. The speed governor rope and sheaves shall comply with the following:

- a. The governor shall be used in conjunction with a 6 mm (0.25 in.) diameter steel governor rope with 6-strand, regular lay construction.
- b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
- c. The governor sheaves shall have a pitch diameter of not less than 180 mm (7.1 in.).

13. All medical emergency service elevators shall comply with the following:

- a. The requirements of the 2019 California Building Code (CBC), section 3002.4.1a;

The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5inch (127 mm) radius corners] in the horizontal, open position.

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).

- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S/Gen3 Core elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in

accordance with the Board's procedural regulations at section 426, subdivision (b).

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

DATED: December 16, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

TO: Installers, Manufacturers of Conveyances and Related Equipment and, Other Interested Parties

SUBJECT: Coated Steel Belt Monitoring

The Elevator Safety Orders require routine inspection of the suspension means of an elevator to assure its safe operation.

The California Labor Code section 7318 allows Cal/OSHA to promulgate special safety orders in the absence of regulation.

As it is not possible to see the steel cable suspension means of a Coated Steel Belt, a monitoring device which has been accepted by Cal/OSHA is required on all Coated Steel Belts which will automatically stop the car if the residual strength of any belt drops below 60%. The Device shall prevent the elevator from restarting after a normal stop at a landing.

The monitoring device must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room. The removed device must be replaced or returned to proper service within 30 days.

If upon routine inspection, the monitoring device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room.

If upon inspection by Cal/OSHA, the monitoring device is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service.

If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

A successful test of the device's functionality shall be conducted once a year.

This circular does not preempt Cal/OSHA from adopting regulations in the future, which may address the monitoring of Coated Steel Belts or any other suspension means.

This circular does not create an obligation on the part of Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-429	Roseville Senior Affordable 2 LP	Building 3, 4201 Santucci Blvd. Roseville, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-429	1	7	150	12,247
25-V-429	2	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-430	Roseville Senior Affordable 2 LP	Building 4, 4201 Santucci Blvd. Roseville, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to provided safely robust and durable suspension means over the course of the ropes' foreseen service life.
6. KONE has represented to Cal/OSHA, having established an engineering practice for purposes of Monospace 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quality of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-430	1	7	150	12,247
25-V-430	2	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-431	8500 Haven LLC	8580 Haven Ave., Rancho Cucamonga, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.

7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-431	1	7	200	11,556

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 500 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-432	8500 Haven LLC	8510 Haven Ave., Rancho Cucamonga, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-432	1	7	200	11,556
25-V-432	2	7	200	11,556

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 500 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-433	8500 Haven LLC	8520 Haven Ave., Rancho Cucamonga, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-433	1	7	200	11,556

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-434	8500 Haven LLC	8530 Haven Ave., Rancho Cucamonga, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-434	1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-435	8500 Haven LLC	8540 Haven Ave., Rancho Cucamonga, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-435	1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-436	8500 Haven LLC	8560 Haven Ave., Rancho Cucamonga, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-436	1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-437	8500 Haven LLC	8570 Haven Ave., Rancho Cucamonga, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application

PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.
12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby

incorporated Decision and Order Appendix 2.

13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-437	1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-438	GS Parks at Murrieta I, LLC	25440 Solaris Place Murrieta, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in

conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-438	EL 1	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-439	GS Parks at Murrieta Owner I, LLC	25405 Solaris Place Murrieta, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in

conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quantity of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-439	EL 2	7	150	12,247
25-V-439	EL 3	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: KONE Monospace 300 Elevators & Medical Emergency Elevator Car Dimensions (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 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-440	GS Parks at Murrieta Owner I, LLC	40848 Sultana Way, Murrieta, 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 December 3, 2025 via videoconference by the Board with Hearing Officer Michelle Iorio, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration.
2. At the hearing, Fuei Saetern, with KONE INC., appeared on behalf of each Applicant; and Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

Exhibit Number	Description of Exhibit
PD1	Application(s) for Permanent Variance per section A.1 table
PD2	OSHSB Notice of Hearing
PD3	Cal/OSHA Review of Variance Application
PD4	Review Draft-1 Proposed Decision

4. Official notice is taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On December 3, 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 300 type elevator, in the quantity, at the location, specified per the above section A.1 table.
2. The installation contract for this elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
3. Each Applicant proposes to use hoisting ropes that are 8 mm in diameter which also consist of 0.51 mm diameter outer wires, in variance from the express requirements of ASME A17.1-2004, section 2.20.4.
4. In relevant part, ASME A17.1-2004, section 2.20.4 states:

2.20.4 Minimum Number and Diameter of Suspension Ropes

...The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

5. An intent of ASME A17.1-2004, section 2.20.4, is to ensure that the number, diameter, and construction of suspension ropes are adequate to 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 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010 - under which, given that factor of safety, supplemental broken suspension member protection is not required.
7. Also, each Applicant proposes as a further means of maintaining safety equivalence, monitoring the rope in conformity with the criteria specified within the *Inspector's Guide to 6 mm Diameter Governor and 8 mm Diameter Suspension Ropes for KONE Elevators* (per Application attachment "B", or as thereafter revised by KONE subject Cal/OSHA approval).
8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from Title 8, section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.
9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

2.18.5.1 Material and Factor of Safety.

... [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5...

10. The Board takes notice of section 3141.7, subpart (a)(10):

A reduced diameter governor rope of equivalent construction and material to that required by ASME A17.1-2004, is permissible if the factor of safety as related to the strength necessary to activate the safety is 5 or greater;

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in

conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders (ESO), take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245, and 13-V-303).
13. As noted by the Board in permanent Variance Nos. 18-V-044, and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.
14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).
15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

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

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 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).
2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.
3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.
4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE, Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).
5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.
6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.
7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.
8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.
10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.
11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.
12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.
13. All medical emergency service elevator(s) shall comply with the 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: December 22, 2025



Michelle Iorio, Hearing Officer

APPENDIX 1

Variance Number	Elevator ID	Minimum Quality of Ropes (per Condition 3)	Maximum Speed in Feet per Minute (per Condition 6)	Maximum Suspended Load (per Condition 7)
25-V-440	EL 4	7	150	12,247
25-V-440	EL 5	7	150	12,247

APPENDIX 2

Suspension Means - Replacement Reporting Condition

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
2. Each such report shall contain, but not necessarily be limited to, the following information:
 - a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.
 - b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).
 - c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.
 - d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.
 - e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.
 - f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.
 - g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.
 - h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is

- modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
- j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.
 - k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.
3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance Regarding: TK Elevator Evolution (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations¹, as follows:

Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
25-V-489	Mayfair Affordable Housing LP	11690 San Pablo Ave. El Cerrito, CA	1

2. These proceedings are conducted in accordance with Labor Code section 143, and section 401, et seq. of the Occupation 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, Michelle Iorio, 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 the Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

¹ Unless otherwise noted, references are to the California Code of Regulations, title 8.

Exhibit Number	Description of Exhibit
PD-1	Application(s) for Permanent Variance per section A.1 table
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 December 3, 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 (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process or their equivalent.

Variance Request No. 2B (ASME A17.1-2004, section 2.20.2[.1])

2.20.2.1 On Crosshead Data Plate.

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(a) the number of ropes

(b) the diameter in millimeters (mm) or inches (in.)

(c) the manufacturer's rated breaking strength per rope in kilo Newton (kN) or

pounds (lb)

Variance Request No. 2C (ASME A17.1-2004, section 2.20.2.2)

2.20.2.2 On Rope Data Tag.

A metal data tag shall be securely attached to one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[...]

(f) whether the ropes were nonpreformed or preformed

[...]

Variance Request No. 2D. (ASME A17.1-2004, section 2.20.3)

2.20.3 Factor of Safety

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{S \times N}{W}$$

where

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Variance Request No. 2E (ASME A17.1-2004, section 2.20.4)

2.20.4 Minimum Number and Diameter of Suspension Ropes

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used

shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Variance Request No. 2F (ASME A17.1-2004, section 2.20.9[.1])

2.20.9 Suspension-Rope Fastening

2.20.9.1 Type of Rope Fastenings. The car and counterweight ends of suspension wire ropes, or the stationary hitch-ends where multiple roping is used, shall be fastened in such a manner that all portions of the rope, except the portion inside the rope sockets, shall be readily visible.

Fastening shall be

(a) by individual tapered rope sockets (see 2.20.9.4) or other types of rope fastenings that have undergone adequate tensile engineering tests, provided that

(1) such fastenings conform to 2.20.9.2 and 2.20.9.3;

(2) the rope socketing is such as to develop at least 80% of the ultimate breaking strength of the strongest rope to be used in such fastenings; or

(b) by individual wedge rope sockets (see 2.20.9.5); and

(c) U-bolt-type rope clamps or similar devices shall not be used for suspension rope fastenings.

Variance Request No. 3 (ASME A17.1-2004, section 2.26.9.4)

2.26.9.4 Redundant devices used to satisfy 2.26.9.3 in the determination of the occurrence of a single ground, or the failure of any single magnetically operated switch, contactor or relay, or of any single solid state device, or any single device that limits the leveling or truck zone, or a software system failure, shall be checked prior to each start of the elevator from a landing, when on automatic operation. When a single ground or failure, as specified in 2.26.9.3, occurs, the car shall not be permitted to restart. Implementation of redundancy by a software system is permitted, provided that the removal of power from the driving-machine motor and brake shall not be solely dependent on software-controlled means.

Variance Request No. 4 (ASME A17.1-2004, section 2.26.9.6.1)

2.26.9.6.1 Two separate means shall be provided to independently inhibit the flow of alternating-current through the solid state devices that connect the direct-current power source to the alternating-current driving motor. At least one of the means shall be an electromechanical relay.

Variance Request No. 5 (ASME A17.1-2004, section 2.26.1.4.4 (a))

2.26.1.4.4 Machine Room Inspection Operation

(a) When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be located in the machine room.

Variance Request No. 6 (ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b))

8.4.10.1.1 Earthquake Equipment (See Also Fig. 8.4.10.1.1)

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room [see 8.4.10.1.3(i)]

D. Findings of Fact

1. Applicant proposes to utilize inset car top railings and guards in compliance with ASME 17.1-2013, section 2.14.1.7.1 and the *Vivante Westside, LLC* File No. 18-V-364 (Nov. 20, 2020) decision (*Vivante*). Applicant further claims that the request is consistent with the *Vivante*, the *Mack Urban, LLC*, Permanent Variance No. 15-V-349 (Nov. 17, 2016), and the *Patton Equities, LLC* Permanent Variance No. 20-V-128 (Nov. 12, 2020) decisions (*Patton Equities*).
2. Applicant proposes to utilize noncircular elastomeric-coated steel belts (“ECSBs”) rather than steel ropes in a machine room-less (“MRL”) elevator installation, with updated data plates, data tags, and wedge sockets designed for use with ECSBs, as well as the appropriate factor of safety criteria conforming to ASME 17.1-2013, with a continuous residual strength detection device (“RSDD”) compliant with the *San Francisco Public Works* (Permanent Variance No. 21-V-

061, et al.) decisions.

3. The installation shall utilize the TK Elevator Model 104DP001 RSDD, accepted by Cal/OSHA on May 4, 2021.
4. Applicant proposes to comply with ASME A17.1-2013 sections 2.26.9.3, "Protection Against Failures", rather than the requirements of 2.26.9.3 and 2.26.9.4 in the ASME 2004 code.
5. Applicant proposes to use TKE's control systems, using the TKE TAC32T Controller with SIL3 rated elements, to provide equivalent safety to ASME A17.1-2004, section 2.26.9.4 as a means to inhibit flow of Alternating Current to the Driving Motor in compliance with ASME A17.1-2013, section 2.26.9.6.
6. Applicant proposes to locate the Inspection Transfer Switch within the machinery/control room/space in the MRL installation, in compliance with ASME 17.1-2013, section 2.26.1.4.
7. Applicant proposes to locate the Seismic-Operation Reset Switch in the machinery/control room/space in the MRL installation.

E. Decision and Order

Applicant is hereby conditionally GRANTED Permanent Variance as specified below, and to the limited extent, as of the date the Board adopts this Proposed Decision, with respect to the section A specified number of TKE EVO 200 elevator(s), at the specified location, each shall conditionally hold permanent variance from the following subparts of ASME A17.1-2004, currently incorporated by reference into section 3141 of the Elevator Safety Orders:

- Car-Top Railing: 2.14.1.7.1 (Limited to the extent necessary to permit the use of an inset car-top railing)
- Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, and 2.20.9.1 (Limited to the extent necessary to permit the use of the elastomeric-coated steel belts in lieu of circular steel suspension ropes)
- Inspection transfer switch: 2.26.1.4.4(a) (Limited to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room)
- Software Reliant Means to Remove Power: 2.26.9.4 (Limited to the extent necessary to permit the exclusive use of SIL-rated software systems as a means to remove power from the driving machine motor and brake)
- SIL-Rated Circuitry to Inhibit Current Flow: 2.26.9.6.1 (Limited to the extent necessary to permit the use of SIL-rated circuitry in place of an electromechanical

relay to inhibit current flow to the drive motor)

- Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Limited to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room)

Inset Car Top Railing (Variance Request No. 1):

- 1.0 Any and all inset car top railings shall comply with the following:
- 1.1 Serviceable equipment shall be positioned so that mechanics and inspectors do not have to stand on or climb over the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit trained elevator mechanics or elevator service personnel to stand or climb over the car top railing.
- 1.2 The distance that the railing can be inset shall be limited to not more than six inches (6").
- 1.3 All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds two inches (2"), shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
- 1.4 The top surface of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4" diagonal red and white stripes.
- 1.5 The Applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing; each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- 1.6 The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).

Suspension Means (Variance Request No. 2):

- 2.0 The elevator suspension system shall comply with the following:
- 2.1 The elastomeric coated steel belts (ECSBs) and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:

2.20.4.3 – Minimum Number of Suspension Members

2.20.3 – Factor of Safety

2.20.9 – Suspension Member Fastening

- 2.2 Additionally, ECSBs shall meet or exceed all requirements of ASME A17.6 2010, Standard for Elevator Suspension, Compensation, and Governor Systems, Part 3 Noncircular Elastomeric Coated Steel Suspension Members for Elevators.
- 2.3 The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the ECSBs and fastenings and related monitoring and detection systems and criteria for ECSB replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.
- 2.4 ECSB mandatory replacement criteria shall include:
 - 2.4.1. Any exposed wire, strand or cord;
 - 2.4.2. Any wire, strand or cord breaks through the elastomeric coating;
 - 2.4.3. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric coated steel suspension member;
 - 2.4.4. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends.
- 2.5 Traction drive sheaves must have a minimum diameter of 112 mm. The maximum speed of ECSBs running on 112 mm drive sheaves shall be no greater than 6.1 m/s.
- 2.6 If any one (1) ECSB needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: If a new suspension member is damaged during installation, and prior to any contemporaneously installed ECSB having been placed into service, it is permissible to replace the individual damaged suspension member. ECSBs that have been installed on another installation shall not be re used.
- 2.7 A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.
- 2.8 A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).
- 2.9 An elevator controller integrated bend cycle monitoring system shall monitor actual ECSB bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the ECSB makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall

automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single ECSB member drops below (60%) sixty percent of full rated strength. The monitoring means shall prevent the car from restarting. Notwithstanding any less frequent periodic testing requirement per Addendum 2 (Cal/OSHA Circular Letter), the bend cycle monitoring system shall be tested semiannually in accordance with the procedures required per above Conditions 2.3 and 2.4.

- 2.10 The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.
- 2.11 A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.
- 2.12 Comprehensive visual inspections of the entire length of each and all installed suspension members, in conformity with above Conditions 2.3 and 2.4 specified criteria, shall be conducted and documented every six (6) months by a CCCM.
- 2.13 The Applicant shall be subject to the requirements per hereto attached, and inhere incorporated, Addendum 1, "Suspension Means Replacement Reporting Condition."
- 2.14 Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2, and 8.6.1.4, respectively.
- 2.15 The subject elevators(s) shall be equipped with a TK Elevator Model 104DP001 Residual Strength Detection Device accepted by Cal/OSHA on May 4, 2021 or Cal/OSHA accepted equivalent device.

Control and Operating Circuits

Combined Software Redundant Devices with Software Removal of Power from Driving Motor and Brake (Variance Request No. 3)

Removal of Power from Driving Motor Without Electro-mechanical Switches (Variance Request No. 4)

- 3.0 The SIL rated circuitry used to provide device/circuit redundancy and to inhibit electrical current flow in accordance with ASME A17.1-2004, sections 2.26.9.4 and 2.26.9.6.1 shall comply with the following:
 - 3.1 The SIL rated systems and related circuits shall consist of:
 - 3.1.1. ELGO LIMAX33 RED, (aka LIMAX3R-03-050-0500-CNXTG-RJU), Safe Magnetic Absolute Shaft Information System, labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/A 163), followed by the applicable revision number (as in 968/A 163.07/19).

- 3.1.2 Printed circuit board assembly SSOA (6300 AHE001), labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/FSP 1347), followed by the applicable revision number (as in 968/FSP 1347.00/16).
- 3.1.3 Two circuit board components (Serializer S3I and S3O), each labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization and the SIL certification number (968/A 162), followed by the applicable revision number (as in 968/A 162.04/18)
- 3.2 The software system and related circuits shall be certified for compliance with the applicable requirements of ASME A17.1-2013, section 2.26.4.3.2.
- 3.3 The access door or cover of the enclosures containing the SIL rated components shall be clearly labeled or tagged on their exterior with the statement:

**Assembly contains SIL rated devices.
Refer to maintenance Control Program and wiring diagrams
prior to performing work.**

- 3.4 Unique maintenance procedures or methods required for the inspection, testing, or replacement of the SIL rated circuits shall be developed and a copy maintained in the elevator machine/control room/space. The procedures or methods shall include clear color photographs of each SIL rated component, with notations identifying parts and locations.
- 3.5 Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.
- 3.6 A successful test of the SIL rated circuits shall be conducted initially and not less than annually in accordance with the testing procedure. The test shall demonstrate that SIL rated devices, safety functions, and related circuits operate as intended.
- 3.7 Any alterations to the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the alteration of SIL rated devices, the alterations shall be made in conformance with ASME A17.1-2013, section 8.7.1.9.
- 3.8 Any replacement of the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the replacement of SIL rated devices, the replacement shall be made in conformance with ASME A17.1-2013, section 8.6.3.14.
- 3.9 Any repairs to the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the repair of SIL rated devices, the repairs shall be made in conformance with ASME A17.1-2013, section 8.6.2.6.

- 3.10 Any space containing SIL rated circuits shall be maintained within the temperature and humidity range specified by TKE. The temperature and humidity range shall be posted on each enclosure containing SIL rated software or circuits.
- 3.11 Field software changes to the SIL rated system are not permitted. Any changes to the SIL rated system's circuitry will require recertification and all necessary updates to the documentation and diagrams required by Conditions 3.4 and 3.5 above.

Inspection Transfer Switch and Seismic Reset Switch (Variance Request Nos. 5 and 6):

- 4.0 Inspection Transfer switch and Seismic Reset switch placement and enclosure shall comply with the following:
 - 4.1 If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4, does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 - 4.2 If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
- 5.0 The elevator shall be serviced, maintained, adjusted, tested, and inspected only by CCCM having been trained, and competent, to perform those tasks on the TKE EVO 200 elevator system in accordance with written procedures and criteria, including as required per above Conditions 2.3, and 2.4.
- 6.0 Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in full service prior to the Permit to Operate being issued by Cal/OSHA.
- 7.0 The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to California Code of Regulations, 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.

Date: December 22, 2025

Michelle Iorio

Michelle Iorio, Hearing Officer

ADDENDUM 1

SUSPENSION MEANS REPLACEMENT REPORTING REQUIREMENTS

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

- (1) A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, Attn: Engineering section, 2 MacArthur Place Suite 700, Santa Ana, CA 92707.
- (2) Each such report shall contain, but not necessarily be limited to, the following information:
 - (a) The 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 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 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 non-functional 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 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.

- (B) On or before November 21 2021, and thereafter, the above specified and documented RSDD shall be installed and operational on the subject elevator.
- (C) A successful functionality test of each RSDD shall be conducted once a year, and a copy of completed testing documentation conspicuously located in the machine room or within proximity of the controller.

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

In the Matter of Application for Permanent Variance Regarding: TK Elevator Evolution (Group IV)	Permanent Variance No: See section A.1 table below PROPOSED DECISION Hearing Date: December 3, 2025 Location: Zoom

A. Subject Matter

1. The applicants (“Applicant”) below have applied for permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations¹, as follows:

Variance No.	Applicant Name	Variance Location Address	No. of Conveyances
25-V-490	Ken Walker	5156 Santo Rd. San Diego, CA	1

2. These proceedings are conducted in accordance with Labor Code section 143, and section 401, et seq. of the Occupation 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, Michelle Iorio, 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 the Applicant. Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health (“Cal/OSHA”).
3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

¹ Unless otherwise noted, references are to the California Code of Regulations, title 8.

Exhibit Number	Description of Exhibit
PD-1	Application(s) for Permanent Variance per section A.1 table
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 July 23, 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 (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process or their equivalent.

Variance Request No. 2B (ASME A17.1-2004, section 2.20.2[.1])

2.20.2.1 On Crosshead Data Plate.

The crosshead data plate required by 2.16.3 shall bear the following wire-rope data:

(a) the number of ropes

(b) the diameter in millimeters (mm) or inches (in.)

(c) the manufacturer's rated breaking strength per rope in kilo Newton (kN) or

pounds (lb)

Variance Request No. 2C (ASME A17.1-2004, section 2.20.2.2)

2.20.2.2 On Rope Data Tag.

A metal data tag shall be securely attached to one of the wire-rope fastenings. This data tag shall bear the following wire-rope data:

(a) the diameter in millimeters (mm) or inches (in.)

[...]

(f) whether the ropes were nonpreformed or preformed

[...]

Variance Request No. 2D. (ASME A17.1-2004, section 2.20.3)

2.20.3 Factor of Safety

The factor of safety of the suspension wire ropes shall be not less than shown in Table 2.20.3. Figure 8.2.7 gives the minimum factor of safety for intermediate rope speeds. The factor of safety shall be based on the actual rope speed corresponding to the rated speed of the car.

The factor of safety shall be calculated by the following formula:

$$f = \frac{S \times N}{W}$$

where

N = number of runs of rope under load. For 2:1 roping, N shall be two times the number of ropes used, etc.

S = manufacturer's rated breaking strength of one rope

W = maximum static load imposed on all car ropes with the car and its rated load at any position in the hoistway

Variance Request No. 2E (ASME A17.1-2004, section 2.20.4)

2.20.4 Minimum Number and Diameter of Suspension Ropes

The minimum number of hoisting ropes used shall be three for traction elevators and two for drum-type elevators.

Where a car counterweight is used, the number of counterweight ropes used

shall be not less than two.

The term "diameter," where used in reference to ropes, shall refer to the nominal diameter as given by the rope manufacturer.

The minimum diameter of hoisting and counterweight ropes shall be 9.5 mm (0.375 in.). Outer wires of the ropes shall be not less than 0.56 mm (0.024 in.) in diameter.

Variance Request No. 2F (ASME A17.1-2004, section 2.20.9[.1])

2.20.9 Suspension-Rope Fastening

2.20.9.1 Type of Rope Fastenings. The car and counterweight ends of suspension wire ropes, or the stationary hitch-ends where multiple roping is used, shall be fastened in such a manner that all portions of the rope, except the portion inside the rope sockets, shall be readily visible.

Fastening shall be

(a) by individual tapered rope sockets (see 2.20.9.4) or other types of rope fastenings that have undergone adequate tensile engineering tests, provided that

(1) such fastenings conform to 2.20.9.2 and 2.20.9.3;

(2) the rope socketing is such as to develop at least 80% of the ultimate breaking strength of the strongest rope to be used in such fastenings; or

(b) by individual wedge rope sockets (see 2.20.9.5); and

(c) U-bolt-type rope clamps or similar devices shall not be used for suspension rope fastenings.

Variance Request No. 3 (ASME A17.1-2004, section 2.26.9.4)

2.26.9.4 Redundant devices used to satisfy 2.26.9.3 in the determination of the occurrence of a single ground, or the failure of any single magnetically operated switch, contactor or relay, or of any single solid state device, or any single device that limits the leveling or truck zone, or a software system failure, shall be checked prior to each start of the elevator from a landing, when on automatic operation. When a single ground or failure, as specified in 2.26.9.3, occurs, the car shall not be permitted to restart. Implementation of redundancy by a software system is permitted, provided that the removal of power from the driving-machine motor and brake shall not be solely dependent on software-controlled means.

Variance Request No. 4 (ASME A17.1-2004, section 2.26.9.6.1)

2.26.9.6.1 Two separate means shall be provided to independently inhibit the flow of alternating-current through the solid state devices that connect the direct-current power source to the alternating-current driving motor. At least one of the means shall be an electromechanical relay.

Variance Request No. 5 (ASME A17.1-2004, section 2.26.1.4.4 (a))

2.26.1.4.4 Machine Room Inspection Operation

(a) When machine room inspection operation is provided, it shall conform to 2.26.1.4.1, and the transfer switch shall be located in the machine room.

Variance Request No. 6 (ASME A17.1-2004, section 8.4.10.1.1(a)(2)(b))

8.4.10.1.1 Earthquake Equipment (See Also Fig. 8.4.10.1.1)

(a) All traction elevators operating at a rated speed of 0.75 m/s (150 ft/min) or more and having counterweights located in the same hoistway shall be provided with the following:

(1) seismic zone 3 or greater: a minimum of one seismic switch per building

(2) seismic zone 2 or greater:

(a) a displacement switch for each elevator

(b) an identified momentary reset button or switch for each elevator, located in the control panel in the elevator machine room [see 8.4.10.1.3(i)]

D. Findings of Fact

1. Applicant proposes to utilize inset car top railings and guards in compliance with ASME 17.1-2013, section 2.14.1.7.1 and the *Vivante Westside, LLC* File No. 18-V-364 (Nov. 20, 2020) decision (*Vivante*). Applicant further claims that the request is consistent with the *Vivante*, the *Mack Urban, LLC*, Permanent Variance No. 15-V-349 (Nov. 17, 2016), and the *Patton Equities, LLC* Permanent Variance No. 20-V-128 (Nov. 12, 2020) decisions (*Patton Equities*).
2. Applicant proposes to utilize noncircular elastomeric-coated steel belts (“ECSBs”) rather than steel ropes in a machine room-less (“MRL”) elevator installation, with updated data plates, data tags, and wedge sockets designed for use with ECSBs, as well as the appropriate factor of safety criteria conforming to ASME 17.1-2013, with a continuous residual strength detection device (“RSDD”) compliant with the *San Francisco Public Works* (Permanent Variance No. 21-V-

061, et al.) decisions.

3. The installation shall utilize the TK Elevator Model 104DP001 RSDD, accepted by Cal/OSHA on May 4, 2021.
4. Applicant proposes to comply with ASME A17.1-2013 sections 2.26.9.3, "Protection Against Failures", rather than the requirements of 2.26.9.3 and 2.26.9.4 in the ASME 2004 code.
5. Applicant proposes to use TKE's control systems, using the TKE TAC32T Controller with SIL3 rated elements, to provide equivalent safety to ASME A17.1-2004, section 2.26.9.4 as a means to inhibit flow of Alternating Current to the Driving Motor in compliance with ASME A17.1-2013, section 2.26.9.6.
6. Applicant proposes to locate the Inspection Transfer Switch within the machinery/control room/space in the MRL installation, in compliance with ASME 17.1-2013, section 2.26.1.4.
7. Applicant proposes to locate the Seismic-Operation Reset Switch in the machinery/control room/space in the MRL installation.

E. Decision and Order

Applicant is hereby conditionally GRANTED Permanent Variance as specified below, and to the limited extent, as of the date the Board adopts this Proposed Decision, with respect to the section A specified number of TKE EVO 200 elevator(s), at the specified location, each shall conditionally hold permanent variance from the following subparts of ASME A17.1-2004, currently incorporated by reference into section 3141 of the Elevator Safety Orders:

- Car-Top Railing: 2.14.1.7.1 (Limited to the extent necessary to permit the use of an inset car-top railing)
- Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, and 2.20.9.1 (Limited to the extent necessary to permit the use of the elastomeric-coated steel belts in lieu of circular steel suspension ropes)
- Inspection transfer switch: 2.26.1.4.4(a) (Limited to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room)
- Software Reliant Means to Remove Power: 2.26.9.4 (Limited to the extent necessary to permit the exclusive use of SIL-rated software systems as a means to remove power from the driving machine motor and brake)
- SIL-Rated Circuitry to Inhibit Current Flow: 2.26.9.6.1 (Limited to the extent necessary to permit the use of SIL-rated circuitry in place of an electromechanical

relay to inhibit current flow to the drive motor)

- Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Limited to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room)

Inset Car Top Railing (Variance Request No. 1):

- 1.0 Any and all inset car top railings shall comply with the following:
- 1.1 Serviceable equipment shall be positioned so that mechanics and inspectors do not have to stand on or climb over the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit trained elevator mechanics or elevator service personnel to stand or climb over the car top railing.
- 1.2 The distance that the railing can be inset shall be limited to not more than six inches (6").
- 1.3 All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds two inches (2"), shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.
- 1.4 The top surface of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4" diagonal red and white stripes.
- 1.5 The Applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing; each sign shall state:

**CAUTION
STAY INSIDE RAILING
NO LEANING BEYOND RAILING
NO STEPPING ON, OR BEYOND, RAILING**

- 1.6 The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).

Suspension Means (Variance Request No. 2):

- 2.0 The elevator suspension system shall comply with the following:
- 2.1 The elastomeric coated steel belts (ECSBs) and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:

2.20.4.3 – Minimum Number of Suspension Members

2.20.3 – Factor of Safety

2.20.9 – Suspension Member Fastening

- 2.2 Additionally, ECSBs shall meet or exceed all requirements of ASME A17.6 2010, Standard for Elevator Suspension, Compensation, and Governor Systems, Part 3 Noncircular Elastomeric Coated Steel Suspension Members for Elevators.
- 2.3 The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the ECSBs and fastenings and related monitoring and detection systems and criteria for ECSB replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.
- 2.4 ECSB mandatory replacement criteria shall include:
 - 2.4.1. Any exposed wire, strand or cord;
 - 2.4.2. Any wire, strand or cord breaks through the elastomeric coating;
 - 2.4.3. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric coated steel suspension member;
 - 2.4.4. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends.
- 2.5 Traction drive sheaves must have a minimum diameter of 112 mm. The maximum speed of ECSBs running on 112 mm drive sheaves shall be no greater than 6.1 m/s.
- 2.6 If any one (1) ECSB needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: If a new suspension member is damaged during installation, and prior to any contemporaneously installed ECSB having been placed into service, it is permissible to replace the individual damaged suspension member. ECSBs that have been installed on another installation shall not be re used.
- 2.7 A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.
- 2.8 A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).
- 2.9 An elevator controller integrated bend cycle monitoring system shall monitor actual ECSB bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the ECSB makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall

automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single ECSB member drops below (60%) sixty percent of full rated strength. The monitoring means shall prevent the car from restarting. Notwithstanding any less frequent periodic testing requirement per Addendum 2 (Cal/OSHA Circular Letter), the bend cycle monitoring system shall be tested semiannually in accordance with the procedures required per above Conditions 2.3 and 2.4.

- 2.10 The elevator crosshead data plate shall comply with the requirements of ASME A17.1-2013, section 2.20.2.1.
- 2.11 A suspension means data tag shall be provided that complies with the requirements of ASME A17.1-2013, section 2.20.2.2.
- 2.12 Comprehensive visual inspections of the entire length of each and all installed suspension members, in conformity with above Conditions 2.3 and 2.4 specified criteria, shall be conducted and documented every six (6) months by a CCCM.
- 2.13 The Applicant shall be subject to the requirements per hereto attached, and inhere incorporated, Addendum 1, "Suspension Means Replacement Reporting Condition."
- 2.14 Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2, and 8.6.1.4, respectively.
- 2.15 The subject elevators(s) shall be equipped with a TK Elevator Model 104DP001 Residual Strength Detection Device accepted by Cal/OSHA on May 4, 2021 or Cal/OSHA accepted equivalent device.

Control and Operating Circuits

Combined Software Redundant Devices with Software Removal of Power from Driving Motor and Brake (Variance Request No. 3)

Removal of Power from Driving Motor Without Electro-mechanical Switches (Variance Request No. 4)

- 3.0 The SIL rated circuitry used to provide device/circuit redundancy and to inhibit electrical current flow in accordance with ASME A17.1-2004, sections 2.26.9.4 and 2.26.9.6.1 shall comply with the following:
 - 3.1 The SIL rated systems and related circuits shall consist of:
 - 3.1.1. ELGO LIMAX33 RED, (aka LIMAX3R-03-050-0500-CNXTG-RJU), Safe Magnetic Absolute Shaft Information System, labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/A 163), followed by the applicable revision number (as in 968/A 163.07/19).

- 3.1.2 Printed circuit board assembly SSOA (6300 AHE001), labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/FSP 1347), followed by the applicable revision number (as in 968/FSP 1347.00/16).
- 3.1.3 Two circuit board components (Serializer S3I and S3O), each labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization and the SIL certification number (968/A 162), followed by the applicable revision number (as in 968/A 162.04/18)
- 3.2 The software system and related circuits shall be certified for compliance with the applicable requirements of ASME A17.1-2013, section 2.26.4.3.2.
- 3.3 The access door or cover of the enclosures containing the SIL rated components shall be clearly labeled or tagged on their exterior with the statement:

**Assembly contains SIL rated devices.
Refer to maintenance Control Program and wiring diagrams
prior to performing work.**

- 3.4 Unique maintenance procedures or methods required for the inspection, testing, or replacement of the SIL rated circuits shall be developed and a copy maintained in the elevator machine/control room/space. The procedures or methods shall include clear color photographs of each SIL rated component, with notations identifying parts and locations.
- 3.5 Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.
- 3.6 A successful test of the SIL rated circuits shall be conducted initially and not less than annually in accordance with the testing procedure. The test shall demonstrate that SIL rated devices, safety functions, and related circuits operate as intended.
- 3.7 Any alterations to the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the alteration of SIL rated devices, the alterations shall be made in conformance with ASME A17.1-2013, section 8.7.1.9.
- 3.8 Any replacement of the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the replacement of SIL rated devices, the replacement shall be made in conformance with ASME A17.1-2013, section 8.6.3.14.
- 3.9 Any repairs to the SIL rated circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the repair of SIL rated devices, the repairs shall be made in conformance with ASME A17.1-2013, section 8.6.2.6.

- 3.10 Any space containing SIL rated circuits shall be maintained within the temperature and humidity range specified by TKE. The temperature and humidity range shall be posted on each enclosure containing SIL rated software or circuits.
- 3.11 Field software changes to the SIL rated system are not permitted. Any changes to the SIL rated system's circuitry will require recertification and all necessary updates to the documentation and diagrams required by Conditions 3.4 and 3.5 above.

Inspection Transfer Switch and Seismic Reset Switch (Variance Request Nos. 5 and 6):

- 4.0 Inspection Transfer switch and Seismic Reset switch placement and enclosure shall comply with the following:
 - 4.1 If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4, does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
 - 4.2 If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.
- 5.0 The elevator shall be serviced, maintained, adjusted, tested, and inspected only by CCCM having been trained, and competent, to perform those tasks on the TKE EVO 200 elevator system in accordance with written procedures and criteria, including as required per above Conditions 2.3, and 2.4.
- 6.0 Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in full service prior to the Permit to Operate being issued by Cal/OSHA.
- 7.0 The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications pursuant to California Code of Regulations, 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.

Date: December 22, 2025

Michelle Iorio
Michelle Iorio, Hearing Officer

ADDENDUM 1

SUSPENSION MEANS REPLACEMENT REPORTING REQUIREMENTS

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to Cal/OSHA within 30 days any and all replacement activity performed on the elevator(s) pursuant to the requirements of ASME A17.1-2004, section 8.6.3 involving the suspension means or suspension means fastenings.

Further:

- (1) A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, Attn: Engineering section, 2 MacArthur Place Suite 700, Santa Ana, CA 92707.
- (2) Each such report shall contain, but not necessarily be limited to, the following information:
 - (a) The 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 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 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 non-functional 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 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.

- (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.