Public Meeting and Business Meeting

May 16, 2024

Cal/EPA Building Byron Sher Auditorium 1001 I Street Sacramento, California

AND

Via teleconference / videoconference

Meeting Agenda

DEPARTMENT OF INDUSTRIAL RELATIONS Occupational Safety and Health Standards Board 2520 Venture Oaks Way, Suite 350 Sacramento, CA 95833 Tel: (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 healthful workplace for California workers.

AGENDA

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

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.

May 16, 2024 at 10:00 a.m.

Attend the meeting in person:

Cal/EPA Building Byron Sher Auditorium 1001 I Street Sacramento, CA 95814

Attend the meeting via videoconference:

- 1. Go to <u>www.webex.com</u>
- 2. Select "Join a Meeting"
- 3. Enter the meeting number: **1469 63 6425**
- 4. Join the meeting through your WebEx application **OR** through your browser
- 5. Videoconference will be opened to the public at 9:50 a.m.

Attend the meeting via teleconference:

- 1. Dial (844) 992-4726
- 2. Enter the meeting number 1469 63 6425 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:

Those attending the Occupational Safety and Health Standards Board (Board) meeting in person will be added to the public comment queue on the day of the meeting.

Those attending the meeting remotely who wish to comment on agenda items 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

II. PRESENTATION

- A. Presentation on Rolling Gates Proposed Rulemaking
 - Joseph M. Alioto Jr., Board Member

III. PUBLIC MEETING (Open for Public Comment)

This portion of the Public Meeting is open to any interested person to propose new or revised standards to the Board or to make any comment concerning occupational safety and health (Labor Code section 142.2). *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.*

This portion of the meeting is also open to any person who wishes to address the Board on any item on today's Business Meeting Agenda (Government Code (GC) section 11125.7).

Any individual or group wishing to make a presentation during the Public Meeting is requested to contact Sarah Money, Executive Assistant, at (916) 274-5721 at least three weeks in advance of the meeting so that any logistical concerns can be addressed.

A. PUBLIC COMMENT

B. ADJOURNMENT OF THE PUBLIC MEETING

IV. BUSINESS MEETING – All matters on this Business Meeting agenda are subject to such discussion and action as the Board determines to be appropriate.

The purpose of the Business Meeting is for the Board to conduct its monthly business.

- A. PROPOSED EMERGENCY SAFETY ORDER FOR READOPTION (GOV. CODE SEC. 11346.1)
 - 1.
 TITLE 8:
 GENERAL INDUSTRY SAFETY ORDERS

 Chapter 4, subchapter 7, revised section 5204
 Occupational Exposures to Respirable Crystalline Silica
- B. PROPOSED SAFETY ORDER FOR ADOPTION
 - 1. <u>TITLE 8:</u> <u>GENERAL INDUSTRY SAFETY ORDERS</u> Appendix A to Section 5144 <u>Fit Testing Procedures (Mandatory) (HORCHER)</u> (Heard at the March 21, 2024 Public Hearing)
- C. PROPOSED VARIANCE DECISIONS FOR ADOPTION
 - 1. Consent Calendar
- D. REPORTS
 - 1. Legislative Update
 - 2. Cal/OSHA Update
 - 3. Acting Executive Officer's Report
- E. NEW BUSINESS
 - 1. Future Agenda Items

Although any Board Member may identify a topic of interest, the Board may not substantially discuss or take action 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).).

F. CLOSED SESSION

Pending Decisions

1. Permanent Variance No. 20-V-096 (Tutor Perini/O&G JV)

Matters Pending Litigation

- 1. Western States Petroleum Association (WSPA) v. California Occupational Safety and Health Standards Board (OSHSB), et al. United States District Court (Eastern District of California) Case No. 2:19-CV-01270
- 2. WSPA v. OSHSB, et al., County of Sacramento, CA Superior Court Case No. 34-2019-00260210

<u>Personnel</u>

- G. RETURN TO OPEN SESSION
 - 1. Report from Closed Session
- H. ADJOURNMENT OF THE BUSINESS MEETING

| Next Meeting: | June 20, 2024 |
|---------------|--------------------------------|
| | SCIF Vacaville Learning Center |
| | Claude Fellows Conference Room |
| | 1010 Vaquero Circle |
| | Vacaville, CA 95688 |
| | 10:00 a.m. |

CLOSED SESSION

1. If necessary, consideration of personnel matters. (GC section 11126(a)(1)).

2. If necessary, consideration of pending litigation pursuant to GC section 11126(e)(1).

3. If necessary, to deliberate on a pending decision. (GC section 11126(c)(3)).

PUBLIC COMMENT

Efforts will be made to accommodate each individual who has signed up to speak. However, given time constraints, there is no guarantee that all who have signed up will be able to address the State body.

Each speaker is invited to speak for up to two minutes. The Board Chair may extend the speaking time allotted where practicable.

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

The public can speak/participate at the meetings before items that involve decisions.

In addition to public comment during Public Hearings, the Board affords an opportunity to members of the public to address the Board on items of interest that are either on the Business Meeting agenda, or within the Board's jurisdiction but are not on the noticed agenda, during the Public Meeting. 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

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

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

TRANSLATION

Requests for translation services should be made no later than five (5) days before the meeting.

NOTE: Written comments may be emailed directly to oshsb@dir.ca.gov no later than 5:00 p.m. on the Tuesday prior to a scheduled Board Meeting.

Under GC section 11123, subdivision (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 that article. The Board Chair may adopt reasonable time limits for public comments in order to ensure that the purpose of public discussion is carried out. (GC section 11125.7, subd. (b).)

Members of the public who wish to participate in the meeting may do so via livestream on our website at <u>https://videobookcase.com/california/oshsb/</u>. The video recording and transcript of this meeting will be posted on our website as soon as practicable.

For questions regarding this meeting, please call (916) 274-5721.

Meeting Notice

DEPARTMENT OF INDUSTRIAL RELATIONS Occupational Safety and Health Standards Board 2520 Venture Oaks Way, Suite 350 Sacramento, CA 95833 Tel: (916) 274-5721 www.dir.ca.gov/oshsb



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

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

PUBLIC MEETING: On **May 16, 2024,** at 10:00 a.m. in the Byron Sher Auditorium of the Cal/EPA Building 1001 I Street, Sacramento, California

as well as via the following:

- Videoconference at <u>www.webex.com</u> (meeting ID 1469 63 6425)
- Teleconference at (844) 992-4726 (Access code 1469 63 6425)
- Live video stream and audio stream (English and Spanish) at https://videobookcase.com/california/oshsb/

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

BUSINESS MEETING:

On **May 16, 2024,** at 10:00 a.m. in the Byron Sher Auditorium of the Cal/EPA Building 1001 I Street, Sacramento, California

as well as via the following:

- Videoconference at <u>www.webex.com</u> (meeting ID 1469 63 6425)
- Teleconference at (844) 992-4726 (Access code 1469 63 6425)
- Live video stream and audio stream (English and Spanish) at <u>https://videobookcase.com/california/oshsb/</u>

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

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

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sign-language interpreter, documents in Braille, large print or on computer disk, and audio cassette recording. Accommodation requests should be made as soon as possible. Requests for an ALS or CART should be made no later than five (5) days before the hearing.

OCCUPATIONAL SAFETY AND HEALTH

STANDARDS/BOARD

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DAVE THOMAS, Chairman

Business Meeting

Business Meeting Standards for Adoption

Occupational Exposures to Respirable Crystalline Silica

MOVED, That the following resolution be adopted:

WHEREAS, The Occupational Safety and Health Standards Board (Board) finds that California workers in the artificial stone fabrication industry are currently being exposed to hazardous levels of respirable crystalline silica, and that exposure will kill or permanently disable a substantial number of workers through silicosis and other illnesses, unless immediate action to stop these exposures is taken. The Board further adopts and makes findings set forth in the Finding of Emergency that is part of the Notice of Proposed Emergency Action prepared in this matter. Therefore, be it

RESOLVED, that based on the finding stated above, the Board finds that amendments to title 8, California Code of Regulations, chapter 4, subchapter 7, revised section 5204 of the General Industry Safety Orders, Occupational Exposures to Respirable Crystalline Silica, must be adopted on an emergency basis for the immediate and continued preservation of the public health and safety in the workplace, and general welfare in the workplace; and be it further

RESOLVED by the Board, in regular meeting held in Sacramento, California and via teleconference and videoconference, on May 16, 2024, that the proposed amendments of title 8, California Code of Regulations, chapter 4, subchapter 7, revised section 5204 of the General Industry Safety Orders, Occupational Exposures to Respirable Crystalline Silica, appended hereto, be adopted as an emergency regulation; and be it further

RESOLVED that the Board shall file with the Office of Administrative Law a sufficient number of copies of said filing documents and a copy of the rulemaking file for use by the Office of Administrative Law.

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

DAVE THOMAS, CHAIRMAN

Certified As A Regulation Of the Occupational Safety And Health Standards Board

BY:_____ Autumn Gonzalez, Chief Counsel

DATED: May 16, 2024

TITLE 8

CHAPTER 4, SUBCHAPTER 7, REVISED SECTION 5204

OCCUPATIONAL EXPOSURES TO RESPIRABLE CRYSTALLINE SILICA

HYPERLINKS TO RULEMAKING DOCUMENTS:

NOTICE/INFORMATIVE DIGEST

FINDING OF EMERGENCY

PROPOSED TEXT FOR BOARD CONSIDERATION

PROPOSED REGULATORY TEXT FOR READOPTION (SHOWING CHANGES FROM CURRENT EMERGENCY REGULATION – COURTESY COPY)

> Business Meeting Standards for Adoption

Fit Testing Procedures (Mandatory) (HORCHER) MOVED, That the following resolution be adopted:

WHEREAS, On February 2, 2024, the Occupational Safety and Health Standards Board, pursuant to Government Code Section 11346.4, fixed the time and place for a Public Hearing to consider the revisions to Title 8, General Industry Safety Orders, Appendix A to section 5144, Fit Testing Procedures (Mandatory) (HORCHER).

WHEREAS, Such Public Hearing was held in person in San Diego, California and via teleconference and videoconference, on March 21, 2024, and there are now before the Occupational Safety and Health Standards Board the proposed revisions to Title 8, General Industry Safety Orders, Appendix A to section 5144, Fit Testing Procedures (Mandatory) (HORCHER); therefore, be it

RESOLVED By the Occupational Safety and Health Standards Board in regular meeting held in person in Sacramento, California and via teleconference and videoconference, on May 16, 2024, that the proposed revisions to Title 8, General Industry Safety Orders, Appendix A to section 5144, Fit Testing Procedures (Mandatory) (HORCHER), be adopted.

RESOLVED That the Occupational Safety and Health Standards Board shall file with the Office of Administrative Law a sufficient number of copies of said filing documents and a copy of the rulemaking file for use by the Office of Administrative Law.

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

DAVE THOMAS, CHAIRMAN

Certified As A Regulation Of the Occupational Safety And Health Standards Board

BY:_

Autumn Gonzalez, Chief Counsel

DATED: May 16, 2024

TITLE 8

GENERAL INDUSTRY SAFETY ORDERS

APPENDIX A TO SECTION 5144

FIT TESTING PROCEDURES (MANDATORY) (HORCHER)

HYPERLINKS TO RULEMAKING DOCUMENTS:

TEXT FOR BOARD CONSIDERATION

BOARD MEMORANDUM

BOARD NOTICE

Business Meeting Proposed Variance Decisions

CONSENT CALENDAR—PROPOSED VARIANCE DECISIONS MAY 16, 2024, MONTHLY BUSINESS MEETING OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

| PROPOSED DECISIONS FOR BOARD CONSIDERATION, HEARD ON April 24, 2024 |
|---|
|---|

| | Docket Number | Applicant Name | Safety Order(s) at Issue | Proposed Decision Recommendation |
|-----|------------------|---|--------------------------------|--|
| 1. | 22-V-409M1 | NASH - Holland 24th & Waverly Investors, LLC | Elevator | GRANT |
| 2. | 23-V-251M1 | ABR Realty LLC | Elevator | GRANT |
| 3. | 24-V-010 | NOP - 560 Mission, LLC | Elevator | GRANT |
| 4. | 24-V-063 | Core Fullerton Chapman, LLC | Elevator | GRANT |
| 5. | 24-V-064 | North Park Titleholder, LLC | Elevator | GRANT |
| 6. | 24-V-108 | California State University - San Marcos | Elevator | GRANT |
| 7. | 24-V-109 | Pulte Home Company LLC | Elevator | GRANT |
| 8. | 24-V-110 | Pulte Home Company LLC | Elevator | GRANT |
| 9. | 24-V-111 | Pulte Home Company LLC | Elevator | GRANT |
| 10. | 24-V-112 | Pulte Home Company LLC | Elevator | GRANT |
| 11. | 24-V-113 | Pulte Home Company LLC | Elevator | GRANT |
| 12. | 24-V-114 | Pulte Home Company LLC | Elevator | GRANT |
| 13. | 24-V-115 | Pulte Home Company LLC | Elevator | GRANT |
| 14. | 24-V-116 | Pulte Home Company LLC | Elevator | GRANT |
| 15. | 24-V-117 | Griffith Studio Owner, LLC | Elevator | GRANT |
| 16. | 24-V-118 | University of California | Elevator | GRANT |
| 17. | 24-V-119 | Baypost Builders, Inc. | Elevator | GRANT |
| 18. | 24-V-120 | City of Ontario | Elevator | GRANT |
| 19. | 24-V-121 | 501 Broadway Owner, L.L.C. | Elevator | GRANT |

| Docket Number | Applicant Name | Safety Order(s) at Issue | Proposed Decision Recommendation |
|------------------|--------------------------------------|--------------------------------|--|
| 20. 24-V-122 | El Camino Health | Elevator | GRANT |
| 21. 24-V-123 | Azusa Pacific University | Elevator | GRANT |
| 22. 24-V-124 | Avenida Armand, L.P. | Elevator | GRANT |
| 23. 24-V-125 | Salinas Union High School District | Elevator | GRANT |
| 24. 24-V-126 | PA12 Element, LLC | Elevator | GRANT |
| 25. 24-V-127 | Bando Dela 3, LLC | Elevator | GRANT |
| 26. 24-V-128 | Aloe Palm Canyon, L.P. | Elevator | GRANT |
| 27. 24-V-129 | Saint Francis High School | Elevator | GRANT |
| 28. 24-V-130 | Los Angeles World Airports | Elevator | GRANT |
| 29. 24-V-131 | Championship SDSU, LLC | Elevator | GRANT |
| 30. 24-V-132 | 1000 Vermont Los Angeles, LLC | Elevator | GRANT |
| 31. 24-V-133 | D&D International Holdings LLC | Elevator | GRANT |
| 32. 24-V-134 | Formosa Bureau of Investments LLC | Elevator | GRANT |
| 33. 24-V-135 | Lots 21 & 22 Owner (DE), LLC | Elevator | GRANT |
| 34. 24-V-136 | Lithia Motors Inc. | Elevator | GRANT |
| 35. 24-V-137 | Lithia Motors Inc. | Elevator | GRANT |
| 36. 24-V-138 | NOR BRAND III, LLC | Elevator | GRANT |
| 37. 24-V-139 | San Mateo Community College District | Elevator | GRANT |
| 38. 24-V-140 | San Pablo Church Lane LP | Elevator | GRANT |
| 39. 24-V-141 | Mercy Housing California 96, L.P. | Elevator | GRANT |
| 40. 24-V-142 | BIF NON OZ 7518 S. Hoover St. LLC | Elevator | GRANT |
| 41. 24-V-143 | BIF NON OZ 10705 Avalon LLC | Elevator | GRANT |
| 42. 24-V-144 | Allied 1510 Parkmoor, L.P. | Elevator | GRANT |
| 43. 24-V-145 | GI Property 79 LLC | Elevator | GRANT |

| Docket Number | Applicant Name | Safety Order(s) at Issue | Proposed Decision Recommendation |
|------------------|---|--------------------------------|--|
| 44. 24-V-147 | 4/12 Church | Elevator | GRANT |
| 45. 24-V-148 | Pepperdine University | Elevator | GRANT |
| 46. 24-V-149 | Ed Mitchell West LLC - DBA Wilkes Bashford | Elevator | GRANT |
| 47. 24-V-165 | STC Venture 200WA, LLC a Delaware limited liability Co. | Elevator | GRANT |
| 48. 24-V-166 | STC Venture 200WA, LLC a Delaware limited liability Co. | Elevator | GRANT |

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

In the Matter of Application to Modify Permanent Variance by: Permanent Variance No.: 22-V-409M1 Proposed Decision Dated: April 24, 2024

NASH - Holland 24th & Waverly Investors, LLC

DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Kelly Chau, Hearing Officer.

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVID HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: May 16, 2024

THE FOREGOING VARIANCE DECISION WAS ADOPTED ON THE DATE INDICATED ABOVE. IF YOU ARE DISSATISFIED WITH THE DECISION, A PETITION FOR REHEARING MAY BE FILED BY ANY PARTY WITH THE STANDARDS BOARD WITHIN TWENTY (20) DAYS AFTER SERVICE OF THE DECISION. YOUR PETITION FOR REHEARING MUST FULLY COMPLY WITH THE REQUIREMENTS OF CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTIONS 427, 427.1 AND 427.2.

Note: A copy of this Decision must be posted for the Applicant's employees to read, and/or a copy thereof must be provided to the employees' Authorized Representatives.

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: | Permanent Variance No.: 22-V-409M1 |
|--|--|
| NASH - Holland 24th & Waverly | PROPOSED DECISION |
| Investors, LLC | Hearing Date: April 24, 2024 Location: Zoom |

A. Subject Matter

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

| Preexisting Permanent Variance No. | Applicant Name | Preexisting Variance Address of Record |
|--|---|---|
| 22-V-409 | NASH - Holland 24th & Waverly Investors, LLC | 2539 Harrison Street Oakland, CA |

 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. <u>Procedural</u>

- 1. This hearing was held on April 24, 2024 via videoconference by the Board with Hearing Officer, Kelly Chau, both presiding and hearing the matter on its merit, as a basis of proposed decision to be advanced to the Board for its consideration, in accordance with section 426.
- 2. At the hearing Wolter Geesink with Otis Elevator Company, and Dan Leacox of Leacox & Associates, Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

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

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

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

 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 April 24, 2024, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

- The Applicant requests modification of the address of the unchanging variance location specified within Board records for each elevator the subject of previously granted Permanent Variance 22-V-409.
- Application section 3, 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 22-V-409 is in effect, in fact is more completely, and correctly the different combination of addresses specified in below subsection D.5.
- 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-409.
- 4. The Board finds the above subpart D.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-409 was, in part, based.
- 5. The Board finds the correct address by which to designate the location of each elevator the subject of Permanent Variance No. 22-V-409, to be:

269 24th St. Oakland, CA

- D. Decision and Order
 - 1. Permanent Variance Application No. 22-V-409M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each elevator being the subject of Permanent Variance Nos. 22-V-409, and 22-V-409M1, shall have the following address designation:

269 24th St. Oakland, CA

2. Permanent Variance No. 22-V-409, 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-409M1.

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

Dated: <u>April 24, 2024</u>

<u>elly</u> chau

Kelly Chau, Hearing Officer

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

In the Matter of Application to Modify Permanent Variance by: Permanent Variance No.: 23-V-251M1 Proposed Decision Dated: April 24, 2024

ABR Realty LLC

DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Kelly Chau, Hearing Officer.

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVID HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: May 16, 2024

THE FOREGOING VARIANCE DECISION WAS ADOPTED ON THE DATE INDICATED ABOVE. IF YOU ARE DISSATISFIED WITH THE DECISION, A PETITION FOR REHEARING MAY BE FILED BY ANY PARTY WITH THE STANDARDS BOARD WITHIN TWENTY (20) DAYS AFTER SERVICE OF THE DECISION. YOUR PETITION FOR REHEARING MUST FULLY COMPLY WITH THE REQUIREMENTS OF CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTIONS 427, 427.1 AND 427.2.

Note: A copy of this Decision must be posted for the Applicant's employees to read, and/or a copy thereof must be provided to the employees' Authorized Representatives.

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: | Permanent Variance No.: 23-V-251M1 |
|--|--|
| ABR Realty LLC | PROPOSED DECISION |
| | Hearing Date: April 24, 2024 Location: Zoom |

A. Subject Matter

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

| Preexisting Permanent Variance No. | Applicant Name | Preexisting Variance Address of Record |
|--|----------------|---|
| 23-V-251 | ABR Realty LLC | 6569 Van Nuys Blvd. Van Nuys, CA |

 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 April 24, 2024 via videoconference' by the Board with Hearing Officer, Kelly Chau, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration in accordance with section 426.
- 2. At the hearing Wolter Geesink with Otis Elevator Company, and Dan Leacox of Leacox & Associates, Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

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

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

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

 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 April 24, 2024, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

- The Applicant requests modification of the address of the unchanging variance location specified within Board records for each elevator the subject of previously granted Permanent Variance 23-V-251.
- Application section 3, 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 23-V-251 is in effect, in fact is more completely, and correctly the different combination of addresses specified in below subsection D.5.
- 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-251.
- 4. The Board finds the above subpart D.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-251 was, in part, based.
- 5. The Board finds the correct address by which to designate the location of each elevator the subject of Permanent Variance No. 23-V-251, to be:

14526 W. Kittridge St. Los Angeles, CA

- D. Decision and Order
 - 1. Permanent Variance Application No. 23-V-251M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each elevator being the subject of Permanent Variance Nos. 23-V-251, and 23-V-251M1, shall have the following address designation:

14526 W. Kittridge St. Los Angeles, CA

2. Permanent Variance No. 23-V-251, 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-251M1.

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

Dated: April 24, 2024

Kelly Chau, Hearing Officer

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

In the Matter of Application for Permanent Variance regarding:

Otis E2 Alteration (Group IV) w/variant Railing and Gov.

Permanent Variance No.: see section A.1 table of Proposed Decision Dated: April 24, 2024

DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Kelly Chau, Hearing Officer.

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVID HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: May 16, 2024

THE FOREGOING VARIANCE DECISION WAS ADOPTED ON THE DATE INDICATED ABOVE. IF YOU ARE DISSATISFIED WITH THE DECISION, A PETITION FOR REHEARING MAY BE FILED BY ANY PARTY WITH THE STANDARDS BOARD WITHIN TWENTY (20) DAYS AFTER SERVICE OF THE DECISION. YOUR PETITION FOR REHEARING MUST FULLY COMPLY WITH THE REQUIREMENTS OF CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTIONS 427, 427.1 AND 427.2.

Note: A copy of this Decision must be posted for the Applicant's employees to read, and/or a copy thereof must be provided to the employees' Authorized Representatives.

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

| In the Matter of Application for Permanent Variance Regarding: | Permanent Variance Nos.: See Section A.1 table below |
|---|---|
| Otis E2 Alteration (Group IV) w/variant Railing and Gov. | PROPOSED DECISION |
| | Hearing Date: April 24, 2024 |
| | Location: Zoom |

A. Subject Matter

 The applicants ("Applicant") below have applied for permanent vairnace from provision of the Elevator Safety Orders found at title 8 of the California Code of Regulations,¹ as follows:

| Permanent Variance No. | Applicant Name | Variance Location Address | No. of Elevators |
|---------------------------|------------------------|--------------------------------------|---------------------|
| 24-V-010 | NOP - 560 Mission, LLC | 560 Mission St. San Francisco, CA | 11 |

 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 Apil 24, 2024 via videoconference by the Boardwith Hearing Officer, Kelly Chau, both presiding and hearing the matter on its merit in accordance with section 426.
- 2. At the hearing, Dan Leacox of Leacox & Associates, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; Mark Wickens and Jose Ceja 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 | 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-3 Proposed Decision |

4. Official notice taken of the Board's files, records, recordings and decisions concerning Otis elevators. At close of hearing on April 24, 2024, the record was closed, and the matter taken under submission by the Hearing Officer.

C. Findings of Fact

- 1. The applicability of the alteration requirements, as proposed by the Applicant, would be compliant with ASME A17.1-2004, sections 8.7.1.1(b).
- 2. The installation contracts for elevators, the subject of permanent variance application(s) specified per section A.1 table, were signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders ("ESO").
- 3. Section 3141 [referencing 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."
- 4. A safety enhancing purpose of this code requirement is to provide fall protection from a potentially hazardous condition. The code requires the handrails to be installed at the perimeter of the car to prevent persons or objects from occupying the area beyond the handrail adjacent to an opening through which a person could fall a distance posing risk of serious injury or death.
- 5. Each Applicant proposes to inset the car top railings in a manner consistent with previous permanent variances granted to Otis Gen2S products. (e.g. Permanent Variance Nos. 14-V-375, 16-V-360)
- Use of inset car top railings as proposed by the Applicant, subject to conditions per below section E, Decision and Order, will provide safety equivalent to that of ASME A17.1-2004, section 2.14.1.7.1, requirements from which permanent variance is sought.
- Section 3141 [referencing ASME A17.1-2004, section 2.18.7.4], as well as section 3141.7(a)(10) specify the pitch diameter of governor sheaves and governor tension sheaves relative to the diameter of the governor rope, given certain rope construction and material.

- 8. A safety enhancing purpose of ASME A17.1-2004, section 2.18.7.4, is to prevent the bending of the governor rope around a sheave of insufficient diameter, such that it could reduce the rope's life expectancy and working strength.
- 9. Each Applicant's proposed use of a governor with sheave pitch diameter of not less than the product of the governor rope diameter and a multiplier of 30, in conjunction with a steel governor rope with a diameter of 8 mm (0.315 in.), 8 strand construction, and a factor of safety of 8 or greater, subject to conditions per below section E, Decision and Order, will provide safety equivalent to that of the subject requirements from which permanent variance is sought.
- In its evaluation of application for permanent variance 16-V-042, dated February 24, 2016, Cal/OSHA states that the Board has granted permanent variances for installations similar to those for which variance is now sought (e.g. Permanent Variance No. 15-V-169).
- 11. Both by way of its written evaluation (Exhibit PD-3), and statements at hearing, Cal/OSHA has taken the position that each Applicant's proposal for permanent variance and means of safety equivalence, subject to Cal/OSHA recommended conditions (in substantial part incorporated into the below Decision and Order), will provide safety equivalent to the standards from which permanent variance is sought.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application listed in the above section A is conditionally GRANTED, subject to the following conditions and limitations, as of the date the Board adopts this Proposed Decision. Each applicant shall have permanent variances from the following sections of ASME A17.1-2004 made applicable by sections 3141 and 3141.2a of the Elevator Safety Orders:

- Car top railing: sections 2.14.1.7.1 (only to the extent necessary to permit an inset car top railing, if, in fact, the car top railing is inset);
- Governor rope diameter: 2.18.5.1 (only to the extent necessary to allow the use of reduced diameter governor rope);

Pitch diameter: 2.18.7.4 (to the extent necessary to use the pitch diameter specified in the following conditions);

- 1. 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 the car top area outside the railing, shall be clearly marked. The markings shall consist of alternating four-inch diagonal red and white stripes.
 - e. The applicant shall provide 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).
- 2. The speed governor rope and sheaves shall comply with the following:
 - a. The governor shall be used in conjunction with a 8 mm (0.315 in.) diameter steel governor rope with 8-strand, regular lay construction.
 - b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
 - c. The governor sheaves shall have a pitch diameter of not less than 240 mm (9.45 in.).
- 3. 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 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.

- 4. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of 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 a Permit to Operate shall be issued before the elevator is placed in service.
- 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 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: <u>April 24, 2024</u>

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Kelly Chau, Hearing Officer

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

In the Matter of Application for Permanent Variance regarding:

TK Elevator Evolution (Group IV)

Permanent Variance No.: see section A.1 table of Proposed Decision Dated: April 24, 2024

DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Kelly Chau, Hearing Officer.

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVID HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: May 16, 2024

THE FOREGOING VARIANCE DECISION WAS ADOPTED ON THE DATE INDICATED ABOVE. IF YOU ARE DISSATISFIED WITH THE DECISION, A PETITION FOR REHEARING MAY BE FILED BY ANY PARTY WITH THE STANDARDS BOARD WITHIN TWENTY (20) DAYS AFTER SERVICE OF THE DECISION. YOUR PETITION FOR REHEARING MUST FULLY COMPLY WITH THE REQUIREMENTS OF CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTIONS 427, 427.1 AND 427.2.

Note: A copy of this Decision must be posted for the Applicant's employees to read, and/or a copy thereof must be provided to the employees' Authorized Representatives.

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

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| In the Matter of Application for Permanent Variance Regarding: | Permanent Variance No: see section A.1 table below | |
|---|---|--|
| TK Elevator Evolution (Group IV) | PROPOSED DECISION Hearing Date: April 24, 2024 Location: Zoom | |

A. Subject Matter

 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,¹ as follows:

| Variance No. | Applicant Name | Variance Location Address | No. of Elevators |
|-----------------|-----------------------------|---|---------------------|
| 24-V-063 | Core Fullerton Chapman, LLC | 2601 E Chapman Ave. Fullerton, CA | 4 |
| 24-V-064 | North Park Titleholder, LLC | 2260 El Cajon Blvd. San Diego, CA | 2 |
| 24-V-118 | University of California | 2300 Hearst Ave. Berkeley, CA | 6 |
| 24-V-148 | Pepperdine University | 24255 Pacific Coast Highway Malibu, CA PKJ (Parking Structure) Between Grid Lines 1 to 2 and A to B | 2 |

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

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

B. <u>Procedural</u>

- 1. This hearing was held on April 24, 2024 via videoconference by the Board with Hearing Officer, Kelly Chau, 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:

| 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 April 24, 2024, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. <u>Relevant Safety Orders</u>

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[.1](a))

2.26.1.4.1 General Requirements

(a) Operating devices for inspection operation shall be provided on the top of the car and shall also be permitted in the car and 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. <u>Findings of Fact</u>

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*, File No. 15-V-349 (Nov. 17, 2016), and the *Patton Equities*, *LLC* File 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 (File 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.
- 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

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 about section A.1 table shall have permanent variances from section 3041, subdivision (e)(1)(c) and 3141.7, subdivision (b) subject of the following conditions:

- 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 Members2.20.3 – Factor of Safety2.20.9 – 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 the Cal/OSHA of Occupational Safety and Health (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 the 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 <u>Motor and Brake (Variance Request No. 3)</u> <u>Removal of Power from Driving Motor Without Electro-mechanical Switches (Variance Request No. 4)</u>

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 The Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by the Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in full service prior to the Permit to Operate being issued by Cal/OSHA.
- 7.0 The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and

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

8.0 This Decision and Order shall remain in effect unless duly modified or revoked upon application by the Applicant, affected employee(s), the 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: ____<u>April 24, 2024</u>____

Kelly Chau, Hearing Officer

ADDENDUM 1

SUSPENSION MEANS REPLACEMENT REPORTING REQUIREMENTS

Beginning on the date the Board adopts this Proposed Decision and continuing for a period of two years, the Applicant shall report to the 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 the Cal/OSHA, to the following address (or to such other address as the 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 the Cal/OSHA regarding the replacement of the suspension means or fastenings.

In addition to the submission of the report to the 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 the 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 the 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 the 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 the 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 the 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 the 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 the 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.

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

In the Matter of Application for Permanent Variance regarding: Permanent Variance No.: see section A.1 table of Proposed Decision Dated: April 24, 2024

KONE Monospace 500 Elevators (Group IV)

DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Kelly Chau, Hearing Officer.

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVID HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: May 16, 2024

THE FOREGOING VARIANCE DECISION WAS ADOPTED ON THE DATE INDICATED ABOVE. IF YOU ARE DISSATISFIED WITH THE DECISION, A PETITION FOR REHEARING MAY BE FILED BY ANY PARTY WITH THE STANDARDS BOARD WITHIN TWENTY (20) DAYS AFTER SERVICE OF THE DECISION. YOUR PETITION FOR REHEARING MUST FULLY COMPLY WITH THE REQUIREMENTS OF CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTIONS 427, 427.1 AND 427.2.

Note: A copy of this Decision must be posted for the Applicant's employees to read, and/or a copy thereof must be provided to the employees' Authorized Representatives.

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

| In the Matter of Application for Permanent Variance Regarding: | Permanent Variance Nos.: See Section A.1 Table Below |
|--|---|
| KONE Monospace 500 Elevators (Group IV) | PROPOSED DECISION |
| | Hearing Date: April 24, 2024 Location: Zoom |

A. Subject Matter

 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,¹ as follows:

| Permanent Variance No. | Applicant Name | Variance Location Address | No. of Elevators |
|---------------------------|---|--|---------------------|
| 24-V-108 | California State University - San Marcos | 303 Campus View Dr. San Marcos, CA | 2 |
| 24-V-129 | Saint Francis High School | 1885 Miramonte Ave. Mountain View, CA | 2 |
| 24-V-135 | Lots 21 & 22 Owner (DE), LLC | 2830 Whiptail Loop W. Carlsbad, CA | 1 |
| 24-V-139 | San Mateo Community College District | 3300 College Dr. San Bruno, CA | 1 |
| 24-V-165 | STC Venture 200WA, LLC a Delaware limited liability Co. | 200 W. Washington Ave. Sunnyvale, CA | 2 |
| 24-V-166 | STC Venture 200WA, LLC a Delaware limited liability Co. | 250 W. Washington Ave. Sunnyvale, CA | 2 |

2. The subject title 8, safety order requirements are set out within California Code of Regulations, title 8, section 3141 incorporated ASME A17.1-2004, sections 2.18.5.1 and 2.20.4.

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

B. Procedural

- 1. This hearing was held on April 24, 2024, via videoconference, by the Occupational Safety and Health Standards Board ("Board") with Hearing Officer, Kelly Chau, both presiding and hearing the matter on its merit, as a basis of proposed decision to be advanced to the Board for its consideration in accordance with section 426.
- 2. At the hearing, Fuei Saetern, with KONE, Inc., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
- 3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

| Exhibit Number | Description of Exhibit | |
|----------------|---|--|
| PD-1 | Application(s) for Permanent Variance per section A.1 | |
| | table | |
| PD-2 | Notice of Hearing | |
| PD-3 | Cal/OSHA Review of Variance Application | |
| PD-4 | Review Draft-1 Proposed Decision | |

 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 April 24, 2024, 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 the afore cited requirement 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, section 2.20.3—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 to Cal/OSHA approval).
- 8. In addition, each Applicant has proposed to utilize 6 mm diameter governor ropes in variance from 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 Elevator Safety Order 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 Elevator Safety Orders, 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 Elevator Safety Orders 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 safety engineers have scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and conclude 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:

 $W = (S \times N)/f$

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 PD-3), 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 Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

1. 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 permaent variance application 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.
- 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 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: <u>April 24, 2024</u>

Kelly Chau, Hearing Officer

Appendix 1

Monospace 500 Suspension Appendix 1 Table.

| 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) |
|-----------------|-------------|---|--|--|
| 24-V-108 | 1 | 8 | 350 | 11,706 |
| 24-V-108 | 2 | 8 | 350 | 11,706 |
| 24-V-129 | 2 | 7 | 150 | 12,247 |
| 24-V-129 | 3 | 7 | 150 | 12,247 |
| 24-V-135 | 3 | 7 | 150 | 12,247 |
| 24-V-139 | 1 | 7 | 150 | 12,247 |
| 24-V-165 | J | 7 | 200 | 11,556 |
| 24-V-165 | К | 7 | 200 | 11,556 |
| 24-V-166 | Н | 7 | 200 | 11,556 |
| 24-V-166 | 1 | 7 | 200 | 11,556 |

<u>Appendix 2</u>

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:

- 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 above Appendix 2, section 2, Subsection (a), above.

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

In the Matter of Application for Permanent Variance regarding: Permanent Variance No.: see section A.1 table of Proposed Decision Dated: April 24, 2024

KONE Monospace 300 Elevators (Group IV)

DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Kelly Chau, Hearing Officer.

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVID HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: May 16, 2024

THE FOREGOING VARIANCE DECISION WAS ADOPTED ON THE DATE INDICATED ABOVE. IF YOU ARE DISSATISFIED WITH THE DECISION, A PETITION FOR REHEARING MAY BE FILED BY ANY PARTY WITH THE STANDARDS BOARD WITHIN TWENTY (20) DAYS AFTER SERVICE OF THE DECISION. YOUR PETITION FOR REHEARING MUST FULLY COMPLY WITH THE REQUIREMENTS OF CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTIONS 427, 427.1 AND 427.2.

Note: A copy of this Decision must be posted for the Applicant's employees to read, and/or a copy thereof must be provided to the employees' Authorized Representatives.

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

| In the Matter of Application for Permanent Variance Regarding: | Permaent Variance Nos.: See Section A.1 Table Below |
|--|--|
| KONE Monospace 300 Elevators (Group IV) | PROPOSED DECISION |
| | Hearing Date: April 24, 2024 Location: Zoom |

A. Subject Matter

 Each below listed applicant ("Applicant") applied for a permanent variance from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations,¹ as follows:

| Permanent Variance No. | Applicant Name | Variance Location Address | No. of Elevators |
|---------------------------|------------------------|-------------------------------------|---------------------|
| 24-V-109 | Pulte Home Company LLC | 401 Tonkin Terrace Sunnyvale, CA | 1 |
| 24-V-110 | Pulte Home Company LLC | 401 Siam Terrace Sunnyvale, CA | 1 |
| 24-V-111 | Pulte Home Company LLC | 401 Mexico Terrace Sunnyvale, CA | 1 |
| 24-V-112 | Pulte Home Company LLC | 401 Kara Terrace Sunnyvale, CA | 1 |
| 24-V-113 | Pulte Home Company LLC | 400 Tonkin Terrace Sunnyvale, CA | 1 |
| 24-V-114 | Pulte Home Company LLC | 400 Siam Terrace Sunnyvale, CA | 1 |
| 24-V-115 | Pulte Home Company LLC | 400 Mexico Terrace Sunnyvale, CA | 1 |
| 24-V-116 | Pulte Home Company LLC | 400 Kara Terrace Sunnyvale, CA | 1 |

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

2. The subject title 8, safety order requirements are set out within California Code of Regulations, Title 8, section 3141 incorporated ASME A17.1-2004, sections 2.18.5.1 and 2.20.4.

B. <u>Procedural</u>

- 1. This hearing was held on April 24, 2024, via videoconference by the Occupational Safety and Health Standards Board ("Board") with Hearing Officer, Kelly Chau, both presiding and hearing the matter on its merit, as a basis of proposed decision to be advanced to the Board for its consideration, in accordance with section 426.
- 2. At the hearing, Fuei Saetern, with KONE, Inc., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
- 3. Documentary and oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

| Exhibit Number | Description of Exhibit |
|----------------|---|
| 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 |

 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 April 24, 2024, 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 the afore cited requirement 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 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, section 2.20.3—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 Title 8, Elevator Safety Order 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 Title 8, Elevator Safety Orders, 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

Title 8, Elevator Safety Orders 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 safety engineers have scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and conclude 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 = (S x N)/f
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 PD-3) 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 Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

1. 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.
- 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 of Occupational Safety and Health, 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: <u>April 24, 2024</u>

Kelly Chau, Hearing Officer

Appendix 1

| Variance Number | Elevator ID | Minimum | Maximum Speed | Maximum |
|-----------------|-------------|-------------------|--------------------|-------------------|
| | | Quantity of Ropes | in Feet per Minute | Suspended Load |
| | | (per Condition 3) | (per Condition 6) | (per Condition 7) |
| 24-V-109 | 1 | 7 | 150 | 12,247 |
| 24-V-110 | 1 | 7 | 150 | 12,247 |
| 24-V-111 | 1 | 7 | 150 | 12,247 |
| 24-V-112 | 1 | 7 | 150 | 12,247 |
| 24-V-113 | 1 | 7 | 150 | 12,247 |
| 24-V-114 | 1 | 7 | 150 | 12,247 |
| 24-V-115 | 1 | 7 | 150 | 12,247 |
| 24-V-116 | 1 | 7 | 150 | 12,247 |

Monospace 300 Suspension Ropes Appendix 1 Table

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:

- A separate report for each elevator shall be submitted, in a manner acceptable 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 above Appendix 2, section 2, Subsection (a), above.

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

In the Matter of 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 of Proposed Decision Dated: April 24, 2024

DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Kelly Chau, Hearing Officer.

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVID HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: May 16, 2024

THE FOREGOING VARIANCE DECISION WAS ADOPTED ON THE DATE INDICATED ABOVE. IF YOU ARE DISSATISFIED WITH THE DECISION, A PETITION FOR REHEARING MAY BE FILED BY ANY PARTY WITH THE STANDARDS BOARD WITHIN TWENTY (20) DAYS AFTER SERVICE OF THE DECISION. YOUR PETITION FOR REHEARING MUST FULLY COMPLY WITH THE REQUIREMENTS OF CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTIONS 427, 427.1 AND 427.2.

Note: A copy of this Decision must be posted for the Applicant's employees to read, and/or a copy thereof must be provided to the employees' Authorized Representatives.

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

| In the Matter of Application for Permanent Variance Regarding: | Permanent Variance No: see section A.1 table below |
|--|--|
| Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV) | <u>PROPOSED DECISION</u> Hearing Date: April 24, 2024 Location: Zoom |

A. Subject Matter

 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,¹ as follows:

| Permanent Variance No. | Applicant Name | Variance Location Address | No. of Elevators |
|---------------------------|----------------------------|---|---------------------|
| 24-V-117 | Griffith Studio Owner, LLC | 5426 San Fernando Road Glendale, CA | 1 |
| 24-V-136 | Lithia Motors Inc. | 1929 South Figueroa Street Los Angeles, CA | 1 |
| 24-V-138 | NOR BRAND III, LLC | 139 South Oak Knoll Avenue Pasadena, CA | 1 |

 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

- 3. This hearing was held on April 24, 2024 via videoconference by the Board with Hearing Officer, Kelly Chau, both presiding and hearing the matter on its merit in accordance with section 426.
- 4. At the hearing, Jennifer Linares 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").

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

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

| 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 |

6. Official notice taken of the Board's files, records, recordings and decisions concerning the Elevator Safety Order requirements from which variance shall issue. On April 24, 2024, 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.

- B. Findings of Fact
 - 1. Each respective Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations, specified per the above section A.1 table in Jurisdictional and Procedural Matters.
 - 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.

C. Conclusive Findings

A preponderence 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.

D. 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 premanent variance 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);

• 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 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.
- I. 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. The Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by the 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 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: April 24, 2024

Kelly Chau, Hearing Officer

EXHIBIT 1 October 6, 2010

CIRCULAR LETTER E-10-04

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

SUBJECT: Coated Steel Belt Monitoring

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

The California Labor Code section 7318 allows the 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 the 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 the 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 the 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 the Cal/OSHA to permit new conveyances utilizing Coated Steel Belts.

Debra Tudor Principal Engineer Cal/OSHA-Elevator Unit HQS

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 the 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 the Cal/OSHA, to the following address (or to such other address as the 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 AI7.I-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 the Cal/OSHA regarding the replacement of the suspension means or fastenings.
- 3. In addition to the submission of the report to the 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 the Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance regarding:

Otis Gen2S/Gen3Edge Elevator & Medical Emergency Elevator Car Dimensions (Group IV) Permanent Variance No.: see section A.1 table of Proposed Decision Dated: April 24, 2024

DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Kelly Chau, Hearing Officer.

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVID HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: May 16, 2024

THE FOREGOING VARIANCE DECISION WAS ADOPTED ON THE DATE INDICATED ABOVE. IF YOU ARE DISSATISFIED WITH THE DECISION, A PETITION FOR REHEARING MAY BE FILED BY ANY PARTY WITH THE STANDARDS BOARD WITHIN TWENTY (20) DAYS AFTER SERVICE OF THE DECISION. YOUR PETITION FOR REHEARING MUST FULLY COMPLY WITH THE REQUIREMENTS OF CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTIONS 427, 427.1 AND 427.2.

Note: A copy of this Decision must be posted for the Applicant's employees to read, and/or a copy thereof must be provided to the employees' Authorized Representatives.

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

| In the Matter of Application for Permanent Variance Regarding: | Permanent Variance Nos.: See section A.1 table below |
|---|--|
| Otis Gen2S/Gen3Edge Elevator & Medical Emergency Elevator Car Dimensions | PROPOSED DECISION |
| (Group IV) | Hearing Date: April 24, 2024 |
| | Location: Zoom |

A. Subject Matter

1. Each applicant ("Applicant") below has applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations,¹ as follows:

| Permanent Variance No. | Applicant Name | Variance Location Address | No. of Elevators |
|------------------------------|----------------------------|---|---------------------|
| 24-V-119 | Baypost Builders, Inc. | 1664 Malcolm Ave. Los Angeles, CA | 1 |
| 24-V-120 | City of Ontario | 331 N. Sultana Ave. Ontario, CA | 2 |
| 24-V-121 | 501 Broadway Owner, L.L.C. | 501 Broadway Santa Monica, CA | 2 |
| 24-V-123 | Azusa Pacific University | Adams Hall 901 East Alosta Ave. Azusa, CA | 1 |
| 24-V-124 | Avenida Armand, L.P. | 1188 Armand Dr. Mountain View, CA | 2 |
| 24-V-126 | PA12 Element, LLC | Element Hotel 2045 Centerpark Rd. Chula Vista, CA | 2 |
| 24-V-127 | Bando Dela 3, LLC | 3020 W. Wilshire Blvd. Los Angeles, CA | 4 |
| 24-V-131 | Championship SDSU, LLC | 5505 Lindo Paseo San Diego, CA | 1 |

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

| 24-V-132 | 1000 Vermont Los Angeles, LLC | 1080 Vermont Ave. Los Angeles, CA | 3 |
|----------|-----------------------------------|--|---|
| 24-V-140 | San Pablo Church Lane LP | 13831 San Pablo Ave. San Pablo, CA | 1 |
| 24-V-141 | Mercy Housing California 96, L.P. | 2700 Middlefield Rd. Redwood City, CA | 4 |
| 24-V-142 | BIF NON OZ 7518 S. Hoover St. LLC | 7524 S. Hoover St. Los Angeles, CA | 1 |
| 24-V-143 | BIF NON OZ 10705 Avalon LLC | 10705 Avalon Blvd. Los Angeles, CA | 1 |
| 24-V-144 | Allied 1510 Parkmoor, L.P. | 1510 Parkmoor Ave. San Jose, CA | 2 |
| 24-V-145 | GI Property 79 LLC | 4347 Woodlawn 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. <u>Procedural</u>

- 1. This hearing was held on April 24, 2024, via videoconference, by the Board with Hearing Officer, Kelly Chau, both presiding and hearing the matter on its merit, as a basis of proposed decision to be advanced to the Board for its consideration.
- 2. At the hearing, Dan Leacox of Leacox & Associates, and Wolter Geesink with Otis Elevator, appeared on behalf of each Applicant; Mark Wickens and Jose Ceja, 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 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 April 24, 2024, the hearing and record closed, and the matter taken under submission by the Hearing Officer.

C. Findings of Fact

- 1. Each Applicant intends to utilize Otis Gen3 Edge/Gen2S elevators at the locations and in the numbers stated in the above section A.1 table.
- 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; and
 - 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.
- 4. Cal/OSHA, by way of written submissions to the record (Exhibit PD-3), and positions stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. <u>Conclusive Findings</u>

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. <u>Decision and Order</u>

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:

• <u>Car top railing</u>: sections 2.14.1.7.1 (only to the extent necessary to permit an inset car top railing, if, in fact, the car top railing is inset);

- <u>Speed governor over-speed switch</u>: 2.18.4.2.5(a) (only insofar as is necessary 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);
- <u>Governor rope diameter</u>: 2.18.5.1 (only to the extent necessary to allow the use of reduced diameter governor rope);
- <u>Pitch diameter</u>: 2.18.7.4 (to the extent necessary to use the pitch diameter specified in Condition No. 13.c);
- <u>Suspension means</u>: 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 are only to the extent necessary to permit the use of Otis Gen2 flat coated steel suspension belts in lieu of conventional steel suspension ropes;
- <u>Inspection transfer switch</u>: 2.26.1.4.4(a) (only to the extent necessary 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
- <u>Seismic reset switch</u>: 8.4.10.1.1(a)(2)(b) (only to the extent necessary 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).
- <u>Minimum Inside Car Platform Dimensions</u>: 3041(e)(1)(C) and 3141.7(b) (Only to the extent necessary to comply with the performance-based requirements of the 2019 California Building Code section 3002.4.1a)

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 IV devices that are designed, equipped, and installed in accordance with, and are otherwise consistent with, the representations made in the Otis Master File [referred to in previous proposed decisions as the "Gen2 Master File") maintained by the Board, as that file was constituted at the time of this hearing) 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 5-inch (127 mm) radius corners] in the horizontal, open position."

- b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, section 3002.4a.
- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).
- 14. The elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen3 Edge/Gen2S elevator system in accordance with the written procedures and criteria required by Condition No. 3 and in accordance with the terms of this permanent variance.
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.
- 17. The Applicant shall be subject to the Suspension Means Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and authorized representatives are to be notified of docketed permanent variance applications.
- 19. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in accordance with the Board's procedural regulations.

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

Dated: <u>April 24, 2024</u>

Kelly Chau, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

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

SUBJECT: Coated Steel Belt Monitoring

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

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

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

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

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

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

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

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

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

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

Debra Tudor Principal Engineer Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means – Replacement Reporting Condition

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

Further:

- 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.
- 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.

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

In the Matter of Application for Permanent Variance regarding:

Otis Gen2O and/or Gen3Peak with Variant Governor Rope and Sheaves (Group IV) Permanent Variance No.: see section A.1 table of Proposed Decision Dated: April 24, 2024

DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Kelly Chau, Hearing Officer.

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVID HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: May 16, 2024

THE FOREGOING VARIANCE DECISION WAS ADOPTED ON THE DATE INDICATED ABOVE. IF YOU ARE DISSATISFIED WITH THE DECISION, A PETITION FOR REHEARING MAY BE FILED BY ANY PARTY WITH THE STANDARDS BOARD WITHIN TWENTY (20) DAYS AFTER SERVICE OF THE DECISION. YOUR PETITION FOR REHEARING MUST FULLY COMPLY WITH THE REQUIREMENTS OF CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTIONS 427, 427.1 AND 427.2.

Note: A copy of this Decision must be posted for the Applicant's employees to read, and/or a copy thereof must be provided to the employees' Authorized Representatives.

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

| In the Matter of Application for Permanent Variance regarding: | Permanent Variance No: See Section A.1 Table Below |
|---|---|
| Otis Gen2O and/or Gen3Peak with Variant Governor Rope and Sheaves | PROPOSED DECISION |
| (Group IV) | Hearing Date: April 24, 2024 Location: Zoom |

A. Subject Matter

 Each applicant ("Applicant") listed in the table below has applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations,¹ as follows:

| Permanent | Applicant Name | Variance Location | No. of Conveyances |
|--------------|------------------|-------------------|--------------------|
| Variance No. | | Address | |
| 24-V-122 | El Camino Health | Wing J Building | 1 |
| | | 2500 Grant Rd. | |
| | | Mountain View, CA | |

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

B. Procedural

- 1. This hearing was held on April 24, 2024 via videoconference by the Board with Hearing Officer, Kelly Chau, both presiding and hearing the matter on its merit in accordance with section 426.
- 2. At the hearing, Dan Leacox of Leacox & Associates, and Wolter Geesink with Otis Elevator Company, 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, all references are to title 8, California Code of Regulations.

| 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 |

- 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 April 24, 2024, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.
- C. Applicable Regulation
 - 1. The Applicants request variance from some or all of the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:
 - a. Applicability of Alteration Requirements; 8.7.1.1(b) (to permit variance from the code sections below);
 - b. Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4,
 2.20.9.3.4, and 2.20.9.5.4 (to permit the use of the Elastomeric Coated Steel Belts proposed by the Applicant in lieu of circular steel suspension ropes.);
 - c. Cartop Railing: 2.14.1.7.1 (to permit the use of the car top railing system proposed by the Applicant, where the railing system is located inset from the elevator car top perimeter);
 - d. Inspection transfer switch: 2.26.1.4.4(a) (to permit the inspection transfer switch to reside at a location other than the machine room);
 - e. 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);
 - f. Governor Rope Diameter: 2.18.5.1 (to permit the use of the governor rope proposed by the Applicant, where the rope has a diameter of 8 mm [0.315 in.]); Note: A variance from the section above is not required. However, the Board has included a variance from this code requirement in similar previous variances.
 - g. Pitch Diameter: 2.18.7.4 (to permit the use of the speed governor system, proposed by the Applicant, where the rope sheave pitch diameter is less than what is required by the Elevator Safety Orders).

D. Findings of Fact

- 1. The Board incorporates by reference the findings stated in:
 - a. Items 3 through 5.c, 5.e, and 5.f of the "Findings of Fact" section of the Proposed Decision adopted by the Board on February 19, 2009, in Permanent Variance No. 08-V-247;
 - b. Item D.3 of the Proposed Decision adopted by the Board on July 16, 2009, in Permanent Variance No. 09-V-042;
 - c. Item D.4 of the Proposed Decision adopted by the Board on September 16, 2010, in Permanent Variance No. 10 V 029;
 - d. Items D.4, D.5, and D.7 of the Proposed Decision adopted by the Board on July 18, 2013, in Permanent Variance No. 12-V-146; and
 - e. Items D.4 and D.5 of the Proposed Decision adopted by the Board on September 25, 2014, in Permanent Variance No. 14-V-170.
- Regarding requested variance in governor sheave diameter, and governor rope diameter, in variance from section 3141, incorporated ASME A17.1-2004, sections 2.18.7.4 and 2.18.5.1, respectively, the Board incorporates by reference the following previous findings of record: Items 8 through 12 of the Proposed Decision adopted by the Board on December 13, 2018, in Permanent Variance No. 18-V-425, and further substantiating bases per therein cited Permanent Variance Decisions of the Board.
- 3. The installation contracts for elevators, the subject of the permanent variance application, were signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders ("ESO").
- 4. Cal/OSHA safety engineer, by way of written submission to the record (Exhibit PD-3), and positions stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

E. Conclusive Findings

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

F. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, Applicant shall have permanent variances from section 3141 and from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4, and 2.20.9.5.4 (to permit the use of the Elastomeric Coated Steel Belts proposed by the Applicant in lieu of circular steel suspension ropes.);
- Cartop Railing: 2.14.1.7.1 (to permit the use of the car top railing system proposed by the Applicant, where the railing system is located inset from the elevator car top perimeter);
- Inspection transfer switch: 2.26.1.4.4(a) (to permit the inspection transfer switch to reside at a location other than the machine room);
- Seismic reset switch: 8.4.10.1.1(a)(2)(b) (to permit the seismic reset switch to reside at a location other than the machine room);
- Governor Rope Diameter: 2.18.5.1 (to permit the use of the governor rope proposed by the Applicant, where the rope has a diameter of 8 mm [0.315 in.]); *Note: A variance from the section above is not required. However, the Board has included a variance from this code requirement in similar previous variances.*
- Pitch Diameter: 2.18.7.4 (to permit the use of the speed governor system, proposed by the Applicant, where the rope sheave pitch diameter is less than what is required by the Elevator Safety Orders).

The variance shall be subject to, and limited by, the following additional conditions:

- Each elevator subject to this variance shall comply with all applicable Group IV Elevator Safety Orders and with all ASME provisions made applicable by those Group IV Elevator Safety Orders, except those from which variances are granted, as set forth in the prefatory portion of this Decision and Order.
- 2. The suspension system shall comply with the following:
 - a. The coated steel belt shall have a factor of safety at least equal to the factor of safety that ASME A17.1-2004, section 2.20.3, would require for wire ropes if the elevator were suspended by wire ropes rather than the coated steel belt.
 - b. Steel-coated belts that have been installed and used on another installation shall not be reused.

- c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
- d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
- e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
- f. The coated steel belts used shall be accepted by Cal/OSHA.
- g. The installation of belts and connections shall be in conformance with the manufacturer's specifications, which shall be provided to Cal/OSHA.
- 3. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Addendum 1 and incorporated herein by this reference.
- 4. The Applicant shall not utilize each elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device, and criteria for belt replacement, and shall make those procedures and criteria available to Cal/OSHA upon request.
- 5. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);
 - c. The name of the person who, or organization that, installed the flat coated steel belts;
 - d. The month and year the flat coated steel belts were installed;
 - e. The month and year the flat coated steel belts were first shortened;
 - f. The name or trademark of the manufacturer of the flat coated steel belts;
 - g. Lubrication information.
- 6. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts,

- b. The belt width and thickness in millimeters or inches, and
- c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
- 7. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 8. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a), does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. When the inspection and test control panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 10. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
- 11. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs, or inspections. The Applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset from the car top perimeter shall be limited to no more than 6 inches.
 - c. All exposed areas of the car top outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
 - d. The top of the beveled area and/or the car top outside the railing, shall be clearly marked. The markings shall consist of alternating four-inch diagonal red and white stripes.
 - e. The Applicant shall provide, on each inset railing, durable signs with lettering not less than ½ inch on a contrasting background. Each sign shall state:

CAUTION DO NOT STAND ON OR CLIMB OVER RAILING

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top, and not from the required bevel).
- 12. The speed governor rope and sheaves shall comply with the following:
 - a. The governor shall be used in conjunction with a 8 mm (0.315 in.) diameter steel governor rope with 8-strand, regular lay construction.
 - b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
 - c. The governor sheaves shall have a pitch diameter of not less than 240 mm (9.45 in.).
- 13. Each elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen2(O) and/or Gen3 Peak elevator system the Applicant proposes to use, in accordance with the written procedures and criteria required by Condition No. 4 and the terms of this permanent variance.
- 14. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 15. Cal/OSHA shall be notified when each elevator is ready for inspection. Each elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before each elevator is placed in service.
- 16. The Applicant shall be subject to the suspension means replacement reporting condition stated in Addendum 2; that condition is incorporated herein by this reference.
- 17. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the application for permanent variance, per sections 411.2 and 411.3.
- 18. This Decision and Order shall remain in effect unless modified or revoked upon application by the Applicant, affected employee(s), Cal/OSHA, or by the Board on its own motion, in the procedural manner prescribed.

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

DATED: 4/24/2024

telly chau

Kelly Chau, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

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

SUBJECT: Coated Steel Belt Monitoring

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

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

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

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

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

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

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

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

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

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

Debra Tudor Principal Engineer Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means – Replacement Reporting Condition

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

Further:

- 1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future):Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
- 2. Each such report shall contain, but not necessarily be limited to, the following information:

a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.

b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).

c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.

d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.

e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.

f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and

(2) any conditions that existed to cause damage or distress to the suspension components being replaced.

g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.

h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance regarding:

Otis Medical Emergency Elevator Car Dimensions (Group IV) Permanent Variance No.: see section A.1 table of Proposed Decision Dated: April 24, 2024

DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Kelly Chau, Hearing Officer.

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVID HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: May 16, 2024

THE FOREGOING VARIANCE DECISION WAS ADOPTED ON THE DATE INDICATED ABOVE. IF YOU ARE DISSATISFIED WITH THE DECISION, A PETITION FOR REHEARING MAY BE FILED BY ANY PARTY WITH THE STANDARDS BOARD WITHIN TWENTY (20) DAYS AFTER SERVICE OF THE DECISION. YOUR PETITION FOR REHEARING MUST FULLY COMPLY WITH THE REQUIREMENTS OF CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTIONS 427, 427.1 AND 427.2.

Note: A copy of this Decision must be posted for the Applicant's employees to read, and/or a copy thereof must be provided to the employees' Authorized Representatives.

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

| In the Matter of Application for Permanent Variance regarding: | Permanent Variance No.: See Section A.1 Table Below |
|---|--|
| Otis Medical Emergency Elevator Car Dimensions (Group IV) | PROPOSED DECISION |
| | Hearing Date: April 24, 2024 |
| | Location: Zoom |

A. Subject Matter

 Each applicant ("Applicant") below has applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations,¹ as follows:

| Permanent Variance No. | Applicant Name | Variance Location Address |
|------------------------------|--------------------------------------|--|
| 24-V-125 | Salinas Union High School District | 726 Main St. Salinas, CA |
| 24-V-128 | Aloe Palm Canyon, L.P. | 1475 N. Palm Canyon Dr. Palm Spring, CA |
| 24-V-133 | D&D International Holdings LLC | 17991 Mitchell South Irvine, CA |
| 24-V-134 | Formosa Bureau of Investments LLC | 1400 N. Soto St. Los Angeles, CA |

- 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.
- 3. This hearing was held on April 24, 2024 via videoconference, by the with Hearing Officer, Kelly Chau, both presiding and hearing the matter on its merit as a basis of proposed decision to be advanced to the Board for its consideration in accordance with section 426.

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

- 4. At the hearing, Dan Leacox of Leacox & Associates, and Wolter Geesink with Otis 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").
- 5. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

| Exhibit Number | Description of Exhibit |
|----------------|---|
| PD-1 | 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 |

6. 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 April 24, 2024, the hearing and record closed, and the matter taken under submission by the Hearing Officer.

B. <u>Findings of Fact and Applicable Regulations</u>

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.

C. 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.

D. 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: 4/24/2024

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Kelly Chau, Hearing Officer

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

In the Matter of Application for Permanent Variance regarding:

Otis Gen2O and/or Gen3 Peak with Variant Governor Rope and Sheaves & Medical Emergency Car Dimensions Permanent Variance No.: see section A.1 table of Proposed Decision Dated: April 24, 2024

DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Kelly Chau, Hearing Officer.

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVID HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: May 16, 2024

THE FOREGOING VARIANCE DECISION WAS ADOPTED ON THE DATE INDICATED ABOVE. IF YOU ARE DISSATISFIED WITH THE DECISION, A PETITION FOR REHEARING MAY BE FILED BY ANY PARTY WITH THE STANDARDS BOARD WITHIN TWENTY (20) DAYS AFTER SERVICE OF THE DECISION. YOUR PETITION FOR REHEARING MUST FULLY COMPLY WITH THE REQUIREMENTS OF CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTIONS 427, 427.1 AND 427.2.

Note: A copy of this Decision must be posted for the Applicant's employees to read, and/or a copy thereof must be provided to the employees' Authorized Representatives.

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

| In the Matter of Application for Permanent Variance regarding: | Permanent Variance No: See Section A.1 Table Below |
|---|---|
| Otis Gen2O and/or Gen3 Peak with Variant Governor Rope and Sheaves & Medical | PROPOSED DECISION |
| Emergency Car Dimensions | Hearing Date: April 24, 2024 Location: Zoom |

A. Subject Matter

 Each applicant ("Applicant") listed in the table below has applied for permanent variances from provisions of the Elevator Safety Orders, found at title 8 of the California Code of Regulations,¹ as follows:

| Permanent Variance No. | Applicant Name | Variance Location Address | No. of Conveyances |
|---------------------------|----------------------------|---|--------------------|
| 24-V-130 | Los Angeles World Airports | Midfield Satellite Concourse South (MSCS) 384 World Way Los Angeles, CA | 2 |

- These proceedings are conducted in accordance with Labor Code section 143 and section 401 et seq. of the Occupational Safety and Health Standards Board's ("Board" or "OSHSB") procedural regulations.
- 3. This hearing was held on April 24, 2024 via videoconference by the Board with Hearing Officer Kelly Chau, both presiding and hearing the matter on its merit in accordance with section 426.
- 4. At the hearing, Dan Leacox of Leacox & Associates, and Wolter Geesink with Otis Elevator Company, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA")
- 5. Oral evidence was received at the hearing, and by stipulation of all parties, documents were admitted into evidence:

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

| 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 |

 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 April 24, 2024, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

B. Applicable Regulation

- 1. The Applicants request variance from some or all of the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:
 - Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4,
 2.20.9.3.4, and 2.20.9.5.4 (Only to the extent necessary to permit the use of the Elastomeric Coated Steel Belts proposed by the Applicant in lieu of circular steel suspension ropes.);
 - b. Cartop Railing: 2.14.1.7.1 (Only to the extent necessary to permit the use of the car top railing system proposed by the Applicant, where the railing system is located inset from the elevator car top perimeter);
 - c. Inspection transfer switch: 2.26.1.4.4(a) (Only to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room);
 - d. Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Only to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room);
 - e. Governor Rope Diameter: 2.18.5.1 (Only to the extent necessary to permit the use of the governor rope proposed by the Applicant, where the rope has a diameter of 8 mm [0.315 in.]); Note: A variance from the section above is not required. However, the Board has included a variance from this code requirement in similar previous variances.
 - f. Pitch Diameter: 2.18.7.4 (Only to the extent necessary to permit the use of the speed governor system, proposed by the Applicant, where the rope sheave pitch diameter is less than what is required by the Elevator Safety Orders).

g. Minimum Inside Car Platform Dimensions: 3041(e)(1)(C) and 3141.7(b) (Only to the extent necessary to comply with the performance-based requirements of the 2019 California Building Code Section 3002.4.1a)

C. Findings of Fact

- 1. The Board incorporates by reference the findings stated in:
 - a. Items 3 through 5.c, 5.e, and 5.f of the "Findings of Fact" section of the Proposed Decision adopted by the Board on February 19, 2009, in Permanent Variance No. 08-V-247;
 - b. Item D.3 of the Proposed Decision adopted by the Board on July 16, 2009, in Permanent Variance No. 09-V-042;
 - c. Item D.4 of the Proposed Decision adopted by the Board on September 16, 2010, in Permanent Variance No. 10-V-029;
 - d. Items D.4, D.5, and D.7 of the Proposed Decision adopted by the Board on July 18, 2013, in Permanent Variance No. 12-V-146; and
 - e. Items D.4 and D.5 of the Proposed Decision adopted by the Board on September 25, 2014, in Permanent Variance No. 14-V-170.
 - f. Item B of the Proposed Decision adopted by the Board on September 15, 2022 for OSHSB File No. 22-V-302 regarding medical emergency car dimensions.
- Regarding requested variance in governor sheave diameter, and governor rope diameter, in variance from section 3141, incorporated ASME A17.1-2004, sections 2.18.7.4 and 2.18.5.1, respectively, the Board incorporates by reference the following previous findings of record: Items 8 through 12 of the Proposed Decision adopted by the Board on December 13, 2018, in Permanent Variance No. 18-V-425, and further substantiating bases per therein cited Permanent Variance Decisions of the Board.
- 3. The installation contracts for elevators, the subject of the permanent variance application, were signed on or after May 1, 2008, making the elevators subject to the Group IV Elevator Safety Orders ("ESO").
- 4. Cal/OSHA safety engineers, by way of written submissions to the record (Exhibit PD-3), and positions stated at hearing, are of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

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, Applicant shall have permanent variances from section 3141 and from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications:

- Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4, and 2.20.9.5.4 (Only to the extent necessary to permit the use of the Elastomeric Coated Steel Belts proposed by the Applicant in lieu of circular steel suspension ropes.);
- Cartop Railing: 2.14.1.7.1 (Only to the extent necessary to permit the use of the car top railing system proposed by the Applicant, where the railing system is located inset from the elevator car top perimeter);
- Inspection transfer switch: 2.26.1.4.4(a) (Only to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room);
- Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Only to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room);
- Governor Rope Diameter: 2.18.5.1 (Only to the extent necessary to permit the use of the governor rope proposed by the Applicant, where the rope has a diameter of 8 mm [0.315 in.]); Note: A variance from the section above is not required. However, the Board has included a variance from this code requirement in similar previous variances.
- Pitch Diameter: 2.18.7.4 (Only to the extent necessary to permit the use of the speed governor system, proposed by the Applicant, where the rope sheave pitch diameter is less than what is required by the Elevator Safety Orders).
- Minimum Inside Car Platform Dimensions: 3041(e)(1)(C) and 3141.7(b) (Only to the extent necessary to comply with the performance-based requirements of the 2019 California Building Code Section 3002.4.1a)

The variance shall be subject to, and limited by, the following additional conditions:

- Each elevator subject to this variance shall comply with all applicable Group IV Elevator Safety Orders and with all ASME provisions made applicable by those Group IV Elevator Safety Orders, except those from which variances are granted, as set forth in the prefatory portion of this Decision and Order.
- 2. The suspension system shall comply with the following:
 - a. The coated steel belt shall have a factor of safety at least equal to the factor of safety that ASME A17.1-2004, section 2.20.3, would require for wire ropes if the elevator were suspended by wire ropes rather than the coated steel belt.
 - b. Steel-coated belts that have been installed and used on another installation shall not be reused.
 - c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.
 - d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.
 - e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).
 - f. The coated steel belts used shall be accepted by Cal/OSHA.
 - g. The installation of belts and connections shall be in conformance with the manufacturer's specifications, which shall be provided to Cal/OSHA.
- 3. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Addendum 1 and incorporated herein by this reference.
- 4. The Applicant shall not utilize each elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device, and criteria for belt replacement, and shall make those procedures and criteria available to Cal/OSHA upon request.
- 5. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:
 - a. The width and thickness in millimeters or inches;
 - b. The manufacturer's rated breaking strength in (kN) or (lbf);

- c. The name of the person who, or organization that, installed the flat coated steel belts;
- d. The month and year the flat coated steel belts were installed;
- e. The month and year the flat coated steel belts were first shortened;
- f. The name or trademark of the manufacturer of the flat coated steel belts;
- g. Lubrication information.
- 6. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
 - a. The number of belts,
 - b. The belt width and thickness in millimeters or inches, and
 - c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
- 7. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 8. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a), does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
- 9. When the inspection and test control panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
- 10. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
- 11. If there is an inset car top railing:
 - a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs, or inspections. The Applicant shall not permit anyone to stand on or climb over the car top railing.
 - b. The distance that the car top railing may be inset from the car top perimeter shall be limited to no more than 6 inches.

- c. All exposed areas of the car top outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
- d. The top of the beveled area and/or the car top outside the railing, shall be clearly marked. The markings shall consist of alternating four-inch diagonal red and white stripes.
- e. The Applicant shall provide, on each inset railing, durable signs with lettering not less than ½ inch on a contrasting background. Each sign shall state:

CAUTION DO NOT STAND ON OR CLIMB OVER RAILING

- f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top, and not from the required bevel).
- 12. The speed governor rope and sheaves shall comply with the following:
 - a. The governor shall be used in conjunction with a 8 mm (0.315 in.) diameter steel governor rope with 8-strand, regular lay construction.
 - b. The governor rope shall have a factor of safety of 8 or greater as related to the strength necessary to activate the safety.
 - c. The governor sheaves shall have a pitch diameter of not less than 240 mm (9.45 in.).
- 13. Each elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen2(O) and/or Gen3 Peak elevator system the Applicant proposes to use, in accordance with the written procedures and criteria required by Condition No. 4 and the terms of this permanent variance.
- 14. All medical emergency service elevators shall comply with the following:
 - a. The requirements of the 2019 California Building Code (CBC), Section 3002.4.1a;

"The medical emergency service elevator shall accommodate the loading and transport of the 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 no less than 5 inch (127 mm) radius corners] in the horizontal, open position."

b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, Section 3002.4a.

- c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).
- 15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
- 16. Cal/OSHA shall be notified when each elevator is ready for inspection. Each elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before each elevator is placed in service.
- 17. The Applicant shall be subject to the suspension means replacement reporting condition stated in Addendum 2; that condition is incorporated herein by this reference.
- 18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the application for permanent variance, per sections 411.2 and 411.3.
- 19. This Decision and Order shall remain in effect unless 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: 4/24/2024

Kelly Chau, Hearing Officer

ADDENDUM 1

October 6, 2010

CIRCULAR LETTER E-10-04

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

SUBJECT: Coated Steel Belt Monitoring

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

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

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

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

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

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

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

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

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

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

Debra Tudor Principal Engineer Cal/OSHA-Elevator Unit HQS

ADDENDUM 2

Suspension Means – Replacement Reporting Condition

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

Further:

- 1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future):Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering section.
- 2. Each such report shall contain, but not necessarily be limited to, the following information:

a. The State-issued conveyance number, complete address, and Permanent Variance number that identifies the permanent variance.

b. The business name, complete address, telephone number, and contact person of the elevator responsible party (presumably the Applicant or the subsequent holder of this variance).

c. The business name, complete address, telephone number, and Certified Qualified Conveyance Company (CQCC) certification number of the firm performing the replacement work.

d. The name (as listed on certification), Certified Competent Conveyance Mechanic (CCCM) certification number, certification expiration date, and signature of each CCCM performing the replacement work.

e. The date and time the elevator was removed from normal service for suspension replacement, the date and time the replacement work commenced, the date and time the replacement work was completed, and the date and time the elevator was returned to normal service.

f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and

(2) any conditions that existed to cause damage or distress to the suspension components being replaced.

g. A detailed list of all elevator components adjusted, repaired, or replaced in conjunction with the suspension component replacement.

h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

i. For the suspension means being replaced, all information provided on the data tag required per ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

j. For the replacement suspension means, all information provided on the data tag required by ASME A17.1-2004, section 2.20.2.2, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

k. Any other information requested by Cal/OSHA regarding the replacement of the suspension means or fastenings.

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance regarding:

Schindler Model 3300 Elevators, W/Variant Governor Ropes and Sheaves (Group IV)

Permanent Variance No.: see section A.1 table of Proposed Decision Dated: April 24, 2024

DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Kelly Chau, Hearing Officer.

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVID HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: May 16, 2024

THE FOREGOING VARIANCE DECISION WAS ADOPTED ON THE DATE INDICATED ABOVE. IF YOU ARE DISSATISFIED WITH THE DECISION, A PETITION FOR REHEARING MAY BE FILED BY ANY PARTY WITH THE STANDARDS BOARD WITHIN TWENTY (20) DAYS AFTER SERVICE OF THE DECISION. YOUR PETITION FOR REHEARING MUST FULLY COMPLY WITH THE REQUIREMENTS OF CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTIONS 427, 427.1 AND 427.2.

Note: A copy of this Decision must be posted for the Applicant's employees to read, and/or a copy thereof must be provided to the employees' Authorized Representatives.

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

| In the Matter of Application for Permanent Variance regarding: | Permanent Variance No.: see section A.1 table below |
|--|---|
| Schindler Model 3300 Elevators, W/ Variant Governor Ropes and Sheaves | PROPOSED DECISION |
| (Group IV) | Hearing Date: April 24, 2024 Location: Zoom |

A. Subject Matter

 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,¹ as follows:

| Variance No. | Applicant Name | Variance Location Address | No. of Elevators |
|--------------|---|---|---------------------|
| 24-V-137 | Lithia Motors Inc. | 1929 South Figueroa Los Angeles, CA | 1 |
| 24-V-149 | Ed Mitchell West LLC - DBA Wilkes Bashford | 180 El Camino Real, Building FF Palo Alto, CA | 1 |

 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 April 24, 2024 via videoconference, by the Board with Hearing Officer Kelly Chau, both presiding and hearing the matter on its merit in accordance with section 426.

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

2. At the hearing, Jennifer Linares, with the Schindler Elevator Company, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").

| Exhibit Number | Description of Exhibit |
|----------------|---|
| PD-1 | Permanent variance applications per table |
| | in Jurisdictional and Procedural Matters |
| PD-2 | OSHSB Notice of Hearing |
| PD-3 | Cal/OSHA Review of variance application |
| PD-4 | Review Draft-1 Proposed Decision |

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

- 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.
- 5. On April 24, 2024, the hearing and record was closed, and the matter 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]

| Rated Speed m/s (ft./min) | Number of Strands | Multiplier |
|----------------------------|-------------------|------------|
| 1.00 or less (200 or less) | 6 | 42 |
| 1.00 or less (200 or less) | 8 | 30 |
| Over 1.0 (over 200) | 6 | 46 |
| Over 1.0 (over 200) | 8 | 32 |

6. SIL-Rated System to Inhibit Current Flow to AC Drive Motor

Section 3141[ASME A17.1-2004, section 2.26.9.6.1] states:

Two separate means shall be provided to independently inhibit the flow of alternating current through the solid state devices that connect the direct current power source to the alternating-current driving motor. At least one of the means shall be an electromechanical relay.

- 6. Findings of Fact
- 1. Each respective Applicant intends to utilize Schindler model 3300 MRL elevator cars, in the quantity, at the locations specified per the above section A.1 table.
- The installation contract for these elevators was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.
- 3. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders. They utilize non-circular elastomeric-coated steel belts and specialized suspension means fastenings.

- 4. No machine room is provided, preventing the inspection transfer switch from being located in the elevator machine room. The lack of machine room also prevents the seismic reset switch from being located in the elevator machine room.
- 5. Applicant proposes to relocate the inspection transfer switch and seismic reset switch in an alternative enclosure.
- 6. Due to the use of a 6 mm (0.25 in.) governor rope with 6-strand construction, the provided governor sheave pitch diameter is less than that required by the Elevator Safety Orders.
- 7. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.
- 8. Applicant proposes to insert the car-top railings at the perimeter of the car top.
- 9. Applicant intends to use an elevator control system, model CO NX100NA or CO NX300NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. 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.

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 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 the following title 8, 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:
 - 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.
- I. 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 the 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.

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.

8. 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: <u>April 24, 2024</u>

Kelly Chau, Hearing Officer

EXHIBIT 1

October 6, 2010

CIRCULAR LETTER E-10-04

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

SUBJECT: Coated Steel Belt Monitoring

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

The California Labor Code section 7318 allows the 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 the 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 the 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 the 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 the 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 the 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:

- A separate report for each elevator shall be submitted, in a manner acceptable to the Cal/OSHA, to the following address (or to such other address as the 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 AI7.I-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 the Cal/OSHA regarding the replacement of the suspension means or fastenings.
- 3. In addition to the submission of the report to the 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 the Cal/OSHA referencing the information contained in item 2a above.

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

In the Matter of Application for Permanent Variance by:

Permanent Variance No.: 24-V-147

4/12 Church

Proposed Decision Dated: April 24, 2024

DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Kelly Chau, Hearing Officer.

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVID HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: May 16, 2024

THE FOREGOING VARIANCE DECISION WAS ADOPTED ON THE DATE INDICATED ABOVE. IF YOU ARE DISSATISFIED WITH THE DECISION, A PETITION FOR REHEARING MAY BE FILED BY ANY PARTY WITH THE STANDARDS BOARD WITHIN TWENTY (20) DAYS AFTER SERVICE OF THE DECISION. YOUR PETITION FOR REHEARING MUST FULLY COMPLY WITH THE REQUIREMENTS OF CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTIONS 427, 427.1 AND 427.2.

Note: A copy of this Decision must be posted for the Applicant's employees to read, and/or a copy thereof must be provided to the employees' Authorized Representatives.

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

| In the Matter of Application for Permanent Variance by: | Permanent Variance No.: 24-V-147 |
|---|--|
| | Proposed Decision |
| 4/12 Church | Hearing Date: April 24, 2024 Location: Zoom |

A. Procedural Matters

 4/12 Church("Applicant") has applied for a permanent variance from provisions of title 8 of the California Code of Regulations¹ regarding vertical platform (wheelchair) lifts, with respect to one vertical platform (wheelchair) lift proposed to be located at:

27919 Jefferson Temecula, CA

- 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 "OSHSH") procedural regulations.
- 3. This hearing was held on April 24, 2024 via videoconference by the Board with Hearing Officer, Kelly Chau, presiding and hearing the matter on its merit in accordance with section 426.
- 4. Appearing at hearing were Craig Fiore with McKinley Elevator Corporation appearing on behalf of the Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Division of Occupational Safety and Health ("Cal/OSHA").
- 5. 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 Permanent Variance |
| PD-2 | OSHSB Notice of Hearing |
| PD-3 | Cal/OSHA Review of Variance Application |

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

| Exhibit Number | Description of Exhibit |
|----------------|----------------------------------|
| PD-4 | Review Draft-1 Proposed Decision |

 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 April 24, 2024, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

B. Findings of Fact

1. The Applicant proposes to install one vertical platform (wheelchair) lift at a location having the address of:

27919 Jefferson Temecula, CA

- 2. Applicant requests variance solely from sections 3142(a) and 3142.1.
- The subject vertical lift is proposed to be a Garaventa Lift, Model GVL-EN-168 or GVL-SW-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.
- 4. The Cal/OSHA evaluation 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.).
- Permanent variances regarding the extended travel of vertical platform lifts, of similar configuration to that of the subject proposed model, have been previously granted, without subsequent safety problems attributable to such variance being reported. (e.g. Permanent Variance Nos. 13-V-260, 15-V-097, 15-V-297, 18-V-069)
- It is the well informed professional opinion of Cal/OSHA (per Exhibit PD-3) that equivalent safety will be achieved upon grant of presently requested permanent variance, subject to conditions materially equivalent to those imposed by Board adopted Decision and Order, In Matters of Application for Permanent Variance Nos. 15-V-297, and 18-V-069.

7. With respect to the equivalence or superior of safety, conditions and limitations of the below Decision and Order are in material conformity with those of previously issued Permanent Variance Nos. 15-V-297, and 18-V-069.

C. 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.

D. Decision and Order

The Application for Permanent Variance of 4/12 Church, Permanent Variance No. 24-V-147, is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, Permanent Variance No. 24-V-147 shall have permanent variances from sections 3041 (e)(1)(c) and 3141.7(b) subject of the following conditions:

- 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 or require 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.
- The lift shall be tested annually for proper operation under rated load conditions. 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 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: <u>April 24, 2024</u>

Kelly Chau, Hearing Officer

Occupational Safety and Health Standards Board

Business Meeting Legislative Update

AB-1 Oil refineries: maintenance.(2023-2024) – NO UPDATE

| | AB-1 Oil refineries: maintenance.(2023-2024) | | |
|------|--|--|--|
| | | (Ting) | |
| | Date | Action | |
| | 12/06/22 | From printer. | |
| | 12/05/22 | Read first time. To print. | |
| AB-1 | The California Refinery a other things, every petro Safety and Health a full shutdown of a refinery p operations and to inspec This bill would express the ensure that only one oil time. | g. Oil refineries: maintenance. and Chemical Plant Worker Safety Act of 1990 requires, among bleum refinery employer to submit to the Division of Occupational schedule of planned turnarounds, meaning a planned, periodic process unit or plant to perform maintenance, overhaul, and repair ct, test, and replace process materials and equipment, as provided. he intent of the Legislature to enact subsequent legislation to refinery in the state is undergoing scheduled maintenance at a g for potential impacts on Board operations. | |

AB-1976 Occupational safety and health standards: first aid kits: naloxone hydrochloride. (2023-2024) - UPDATE

| | AB-1976 Occupational safety and health standards: first aid kits: naloxone hydrochloride. (2023-2024) | | |
|---------|---|--|--|
| AB-1976 | (Haney) | | |
| | Date Action | | |
| | 4/17/24 In committee: Set, first hearing. Referred to suspense file. | | |
| | | | |

| 4/4/24 | From committee: Do pass and re-refer to Com. on APPR. (Ayes 6. Noes 0.) (April 3). Re-referred to Com. on APPR. |
|----------|---|
| 4/3/24 | Set FOR Hearing ON 03-APR-24 1:30 p.m |
| 03/13/24 | In committee: Set, first hearing. Hearing canceled at the request of author. |
| 02/12/24 | Referred to Com. On L. and E. |
| 01/31/24 | From printer. May be heard in committee March 1. |
| 01/30/24 | Read first time. To print. |

Summary:

AB 1976, as introduced, Haney. Occupational safety and health standards: first aid kits: naloxone hydrochloride.

Existing law grants the Division of Occupational Safety and Health, which is within the Department of Industrial Relations, jurisdiction over all employment and places of employment, and the power necessary to enforce and administer all occupational health and safety laws and standards. The Occupational Safety and Health Standards Board, an independent entity within the department, has the exclusive authority to adopt occupational safety and health standards within the state. Existing law, the California Occupational Safety and Health Act of 1973 (OSHA), requires employers to comply with certain safety and health standards.

Existing law requires the division, before December 1, 2025, to submit to the standards board a rulemaking proposal to consider revising certain standards relating to the prevention of heat illness, protection from wildfire smoke, and toilet facilities on construction jobsites. Existing law also requires the standards board to review the proposed changes and consider adopting revised standards on or before December 31, 2025.

This bill would require the standards board, before December 1, 2026, to draft a rulemaking proposal to revise a regulation on first aid materials to require all first aid kits in a workplace to include nasal spray naloxone hydrochloride. The bill would require the standards board to adopt revised standards for the standards described above on or before December 31, 2026.

Board staff is monitoring for potential impacts on Board operations.

AB-2408 Firefighter personal protective equipment: perfluoroalkyl and polyfluoroalkyl substances. (2023-2024) - UPDATE

| | AB-2408 Firefighter personal protective equipment: perfluoroalkyl and polyfluoroalkyl substances. (2023-2024) | |
|---------|---|--|
| | | (Haney) |
| | Date | Action |
| | 04/18/24 | From committee: Do pass and re-refer to Com. on APPR. with recommendation: To Consent Calendar. (Ayes 7. Noes 0.) (April 17). Re-referred to Com. on APPR. |
| | 04/10/24 | From committee: Do pass and re-refer to Com. on L. and E. (Ayes 7. Noes 0.) (April 9). Re-referred to Com. on L. and E. |
| | 04/01/24 | Re-referred to Com. on E.S. & T.M. |
| | 03/21/24 | From committee chair, with author's amendments: Amend, and re-refer to Com. on E.S. & T.M. Read second time and amended. |
| AB-2408 | 03/21/24 | Referred to Coms. on E.S. & T.M. and L. & E. |
| AD 2400 | 02/13/24 | From printer. May be heard in committee March 14. |
| | 02/12/24 | Read first time. To print. |

Summary:

AB 2408, as amended, Haney. Firefighter personal protective equipment: perfluoroalkyl and polyfluoroalkyl substances.

Existing law requires any person that sells firefighter personal protective equipment to provide written notice to the purchaser if the equipment contains intentionally added perfluoroalkyl and polyfluoroalkyl substances (PFAS). Existing law requires the seller to retain a copy of the written notice and provide the notice to specified law enforcement entities, including the Attorney General, upon request. Existing law makes a violation of those provisions subject to a penalty of up to \$5,000 for a first violation and up to \$10,000 for a subsequent violation.

This bill, commencing July 1, 2026, would prohibit a person from manufacturing, knowingly selling, offering for sale, distributing for sale, distributing for sale, distributing for use, or using in this state firefighter personal protective equipment containing PFAS. The bill would make a violation of

this provision subject to the civil penalty provisions described above. The bill would specify that an individual firefighter shall not be personally liable for payment of the civil penalty.
Existing law requires the Occupational Safety and Health Standards Board, in consultation with the Department of Industrial Relations, every 5 years, as specified, to review all revisions to National Fire Protection Association (NFPA) standards pertaining to personal protective equipment covered by specified safety orders. If the review finds the revisions provide a greater degree of personal protection than the safety orders, existing law requires the board to consider modifying existing safety orders and to render a decision regarding changing safety orders or other standards and regulations to maintain alignment of the safety orders with the NFPA standards no later than July 1 of the subsequent year.
This bill would require the board, in consultation with the department, within one year of the NFPA updating a specified standard on protective ensemble for structural firefighting and proximity firefighting to include PFAS-free turnout gear, to update the applicable safety orders, or other standards or regulations, to maintain alignment with the NFPA standard.
The bill would state related findings and declarations of the Legislature.

Board staff is monitoring for potential impacts on Board operations.

AB-2975 Occupational safety and health standards: workplace violence prevention plan. (2023-2024) - UPDATE

| | AB-2975 Occupational s plan. (2023-2024) | afety and health standards: workplace violence prevention |
|---------|---|--|
| | (Gipson) | |
| AB-2975 | Date | Action |
| AD-2373 | 04/18/24 | From committee: Do pass and re-refer to Com. on APPR. (Ayes 6. Noes 0.) (April 17). Re-referred to Com. on APPR. |
| | 04/03/24 | Re-referred to Com. on L. & E. |
| | 04/02/24 | From committee chair, with author's amendments: Amend, and re-refer to Com. on L. & E. Read second time and amended. |

| 04/01/24 | Re-referred to Com. on L. & E. |
|----------|--|
| 03/21/24 | From committee chair, with author's amendments: Amend, and re-refer to Com. on L. & E. Read second time and amended. |
| 03/21/24 | Referred to Com. On L. and E. |
| 02/17/24 | From printer. May be heard in committee March 18. |
| 02/16/24 | Read first time. To print. |

Summary:

AB 2975, as amended, Gipson. Occupational safety and health standards: workplace violence prevention plan.

Existing law, the California Occupational Safety and Health Act of 1973, imposes safety responsibilities on employers and employees, including the requirement that an employer establish, implement, and maintain an effective injury prevention program, and makes specified violations of these provisions a crime. Existing law also requires the Occupational Safety and Health Standards Board to adopt standards developed by the Division of Occupational Safety and Health that require specified types of hospitals to adopt a workplace violence prevention plan as part of the hospital's injury and illness prevention plan to protect health care workers and other facility personnel from aggressive and violent behavior.

This bill would require the standards board, by March 1, 2025, to amend the standards to include a requirement that a hospital maintain metal detectors at specific entrances of a hospital, a requirement that a hospital assign appropriate security personnel who meet training standards, a requirement that the hospital have reasonable protocols for alternative search and screening for patients, family, or visitors who refuse to undergo metal detector screening, and a requirement that a hospital adopt reasonable protocols for storage of patient, family, or visitor property that might be used as a weapon.

This bill would require that the standards include a requirement that a hospital post, within reasonable proximity of any metal detectors maintained at public entrances, a notice adopted by the standards board, notifying the public that the hospital conducts screenings for weapons upon entry but that no person shall be refused medical care for failure to undergo screening by a metal detector.

By expanding the scope of an existing crime, this bill would impose a state-mandated local program.

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

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

Board staff is monitoring for potential impacts on Board operations.

AB-3043 Occupational safety: fabrication activities. (2023-2024) - UPDATE

| | AB-3043 Occupational s | AB-3043 Occupational safety: fabrication activities (2023-2024) | |
|---------|------------------------|--|--|
| | | (Rivas) | |
| | Date | Action | |
| | 04/23/24 | From committee: Do pass and re-refer to Com. on APPR. (Ayes 9. Noes 0.) (April 23). Re-referred to Com. on APPR | |
| | 04/18/24 | From committee: Do pass and re-refer to Com. on JUD. (Ayes 6. Noes 1.) (April 17). Re-referred to Com. on JUD. | |
| AB-3043 | 04/09/24 | Re-referred to Com. on L. & E. | |
| | 04/08/24 | From committee chair, with author's amendments: Amend, and re-refer to Com. on L. and E. Read second time and amended. | |
| | 03/21/24 | In committee: Set, first hearing. Hearing canceled at the request of author. | |
| | 03/11/24 | Referred to Coms. on L. & E. and JUD. | |
| | 02/17/24 | From printer. May be heard in committee March 18. | |
| | 02/16/24 | Read first time. To print. | |

Summary:

AB 3043, as amended, Luz Rivas. Occupational safety: fabrication activities.

Existing law establishes the Occupational Safety and Health Standards Board within the Department of Industrial Relations to promulgate and enforce occupational safety and health standards for the state, including standards dealing with exposure to harmful airborne contaminants. Existing law requires the Division of Occupational Safety and Health within the department to enforce all occupational safety and health standards, as specified. A violation of these standards and regulations under specific circumstances is a crime.

This bill would prohibit a person engaged in fabrication activities or fabrication shops from using dry methods, and require the use of effective wet methods in any fabrication activities. The bill would make a violation of these provisions grounds for, among other disciplinary action, an immediate order prohibiting continued fabrication activities. The bill would authorize the Attorney General, upon request of the department, to petition the superior court to impose civil penalties for a violation of these provisions.

The bill would require, on or before July 1, 2025, the department to consult with representatives of approved apprenticeship programs to adopt a training curriculum regarding the safe performance of fabrication activities that meets specified requirements, including classroom instruction, and to certify an individual who has completed that curriculum immediately upon completion. The bill would prohibit, beginning July 1, 2026, an owner or operator of a slab product fabrication shop from permitting any individual from performing fabrication activities or employing an individual to perform work on the shop floor where those activities are conducted, unless the individual is certified by the department as having completed the training curriculum, except as specified.

The bill would require, on or before January 1, 2026, the department to develop an application and licensing process for fabrication shops to lawfully engage in fabrication activities known as a "slab product fabrication activity" license. The bill would authorize fabrication shops to engage in fabrication activities during the pendency of the application development and licensing process.

The bill would require, beginning January 1, 2026, the department to grant a 3-year license to a fabrication shop that demonstrates satisfaction of specified criteria involving workplace safety conditions and precautions, and would authorize license renewal, as specified. Among other conditions, the bill would establish certain regulatory fees in **specified** amounts for the license and renewal thereof. The bill would authorize the department to suspend or revoke a licensee in certain cases, including for gross negligence, as specified. The bill would prohibit a person or entity, or an employee thereof, from engaging in fabrication activities unless the person or entity has a license.

The bill would require, beginning January 1, 2026, an owner or operator of a slab product fabrication shop to pay each employee at least the general prevailing rate of per diem wages for the geographic area for performing fabrication activities, except as otherwise specified. The bill would authorize the department to, among other disciplinary action, suspend or revoke a license if the department finds that the owner or operator willfully violated that provision.

The bill would prohibit, beginning January 1, 2026, a person from supplying a slab product directly to a person or entity engaged in fabrication activities if the person or entity does not have a valid license. The bill would require a person that, among other things, supplies a slab product to a person or entity engaged in fabrication services to verify the person or entity has a license, as specified. The bill would require a person that supplies a slab product to a person or entity that is not engaged in fabrication activities to rely on written certification issued under penalty of perjury that, among other things, they will not directly engage in fabrication activities with the product without a license. By expanding the scope of the crime of perjury, the bill would impose a state-mandated local program.

The bill would specify that a violation of any of the above-described provisions may be grounds for disciplinary action, as specified, but is not a crime. The bill would establish the Slab Fabrication Activity Account in the Occupational Safety and Health Fund in the State Treasury, and require all fees, penalties, or other moneys collected by the department under the above-described provisions to be deposited into the account. The bill would authorize moneys in the account to be expended by the department for the purposes of administering the above-described provisions, and would make that authorization contingent on an appropriation of funds for that express purpose.

The bill would require, beginning January 1, 2026, the Director of Industrial Relations to maintain a publicly accessible database on the department's internet website that includes, among other things, information on any active orders issued by the department in the prior 12 months prohibiting an activity at a fabrication shop, as specified.

On or before July 1, 2025, the bill would require the department, in consultation with specified agencies, to submit a report to the Legislature pursuant to prescribed requirements, including specifying the number of violations issued for failure to comply with any temporary or future standards relating to respirable crystalline silica adopted by the board, and the geographic areas in the state with the highest numbers of those violations. On or before January 1, 2027, and January 1, 2029, the bill would require the department, in consultation with other specified entities, to submit a report to the Legislature pursuant to prescribed requirements, including, in addition to the information contained in the initial report, the number of licenses issued by the department pursuant to the above-described provisions. The bill would also require the department of the requirements of the bill's provisions in geographic

areas with the highest numbers of violations or other penalties issued by the department relating to respirable crystalline silica. The bill would define various terms for these purposes. The bill would make findings and declarations related to these provisions. The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement. This bill would provide that no reimbursement is required by this act for a specified reason. Board staff is monitoring for potential impacts on Board operations.

| | AB-3106 School employees: COVID-19 cases: protections (2023-2024) | | |
|---------|---|--|--|
| | (Schiavo) | | |
| | Date | Action | |
| | 04/18/24 | From committee: Do pass and re-refer to Com. on APPR. (Ayes 6. Noes 0.) (April 17). Re-referred to Com. on APPR. | |
| AB-3106 | 04/02/24 | Re-referred to Com. on L. & E. | |
| | 04/01/24 | From committee chair, with author's amendments: Amend, and re-refer to Com. on L. & E. Read second time and amended. | |
| | 03/11/24 | Referred to Com. on L. & E. | |
| | 02/17/24 | From printer. May be heard in committee March 18. | |
| | 02/16/24 | Read first time. To print. | |
| | | | |

AB-3106 School employees: COVID-19 cases: protections. (2023-2024) - UPDATE

Summary:

AB 3106, as amended, Schiavo. School employees: COVID-19 cases: protections.

Existing law grants the Division of Occupational Safety and Health, which is within the Department of Industrial Relations, jurisdiction over all employment and places of employment, with the power necessary to enforce and administer all occupational health and safety laws and standards. The Occupational Safety and Health Standards Board, an independent entity within the department, has the exclusive authority to adopt occupational safety and health standards within the state. Existing law, the California Occupational Safety and Health Act of 1973, requires employers to comply with certain standards ensuring healthy and safe working conditions, as specified, and charges the division with enforcement of the act. Other existing law relating to occupational safety imposes special provisions on certain industries and charges the division with enforcement of these provisions.

This bill would require employer, defined to be a school district, county office of education, or charter school, to ensure that COVID-19 cases, defined as specified school employees, who have a positive COVID-19 test, are excluded from the workplace until prescribed return-towork requirements are met. To the extent administering these provisions imposes additional duties on local educational agencies, the bill would impose a state-mandated local program. The bill, with specified exceptions, would require an employer to continue and maintain an excluded school employee's earnings, wages, seniority, and all other employee rights and benefits, including the employee's right to their former job status, as if the employee had not been excluded from the workplace, as prescribed. The bill would require the standards board, by February 3, 2025, to adopt a standard that extends these protections to any occupational infectious disease covered by any permanent infectious disease standard adopted to succeed an existing standard for COVID-19 prevention for those school employees. The bill would require the division to enforce the bill by the issuance of a citation alleging a violation and a notice of civil penalty, as specified. The bill would authorize any person who receives a citation and penalty to appeal the citation and penalty to the Occupational Safety and Health Appeals Board.

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

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

Board staff is monitoring for potential impacts on Board operations.

AB-3258 Refineries and chemical plants. (2023-2024) - NEW

| | AB-3258 Refineries | and chemical plants. (2023-2024) (Bryan) |
|---------|--|---|
| | Date | Action |
| | 04/18/24 | From committee: Do pass and re-refer to Com. on APPR. with recommendation: To Consent Calendar. (Ayes 7. Noes 0.) (April 17). Re-referred to Com. on APPR. |
| | 04/01/24 | Re-referred to Com. on L. & E. |
| | 03/21/24 | From committee chair, with author's amendments: Amend, and re-refer to Com. on L. & E. Read second time and amended. |
| | 03/21/24 | Referred to Com. on L. & E. |
| AB-3258 | 02/17/24 | From printer. May be heard in committee March 18. |
| | 02/16/24 | Read first time. To print. |
| | Summary: | |
| | AB 3258, as amended | d, Bryan. Refinery and chemical plants. |
| | the Occupational Saf standards for refiner Existing law requires turnarounds, as defir prescribed access o requirements for Div | fornia Refinery and Chemical Plant Worker Safety Act of 1990, require rety and Health Standards Board to adopt process safety managemen ries, chemical plants, and other manufacturing facilities, as prescribed a petroleum refinery employer to submit an annual schedule of planned ned, for all affected units for the following calendar year and to provide mosite and to related documentation. Existing law also establishes vision of Occupational Safety and Health access to, and disclosure of ned, including information relating to planned turnarounds of petroleum |

This bill would remove references in existing law to petroleum refineries and petroleum refinery employers and, instead, refer to refineries and refinery employers. The bill would define "refinery" to mean an establishment that produces gasoline, diesel fuel, aviation fuel, biofuel, lubricating oil, asphalt, petrochemical feedstock, or other similar products through the processing of crude oil or alternative feedstock, redistillation of unfinished petroleum derivatives, cracking, or other processes.

Board staff is monitoring for potential impacts on Board operations.

Occupational Safety and Health Standards Board

Business Meeting Acting Executive Officer's Report