# Occupational Safety and Health Standards Board

Public Meeting and Business Meeting

February 15, 2024

Burbank City Hall
Council Chambers
275 E. Olive Avenue
Burbank, California

AND

Via teleconference / videoconference

# Occupational Safety and Health Standards Board

## Meeting Agenda

**STATE OF CALIFORNIA** GAVIN NEWSOM, *Governor*

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.

**February 15, 2024 at 10:00 a.m.**

## Attend the meeting in person:

Burbank City Hall
Council Chambers
275 E. Olive Avenue
Burbank, CA 91502

## Attend the meeting via videoconference:

1. Go to www.webex.com
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. **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

III. **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 SAFETY ORDER FOR ADOPTION

1. TITLE 8: **CONSTRUCTION SAFETY ORDERS**
Section 1532.1
**GENERAL INDUSTRY SAFETY ORDERS**
Sections 5155 and 5198
**Lead**
(Heard at the April 20, 2023 Public Hearing)

B. PROPOSED PETITION DECISION FOR ADOPTION

1. Brand Safway
Tanya Charlesworth, PE
**Petition File No. 599**

Petitioner requests to amend Title 8, Article 14. Construction Safety Orders (CSO), sections 1604 Personnel Hoists and 1604.21 Capacity and Loading, to adopt the ANSI 10.4-2016 standards and allow for a modification to Table 4 (section 1604.21) "Relationship of Hoist Rated Capacity to Inside Net Platform Area", specifically the section "Rated Load" to "Inside Net Platform Area" so that the square feet/area related to the inside net platform can be increased when the hoist car is equipped with an overload detection device and the rated load to inside net platform area is 82psf or higher.

The Petitioner states that the current standard is based on an outdated ANSI reference (the 1973 version) and that they have a large hoist fleet that is equipped with an overload detection device that cannot be extended due to this restriction. This limitation hinders their ability to efficiently utilize the equipment and provide optimal services to their clients. The petitioner adds that adopting the ANSI 10.4-2016 standards will alleviate the challenges faced by their company and others in the same industry and will provide a higher level of protection for workers and equipment.

C. PROPOSED VARIANCE DECISIONS FOR ADOPTION

1. **Consent Calendar**

D. REPORTS

1. Division Update

2. 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

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

Matters on Appeal

1. 22-V-054T Operating Engineers Local 3, District 80

Personnel

G. RETURN TO OPEN SESSION

1. Report from Closed Session

H. ADJOURNMENT OF THE BUSINESS MEETING

**Next Meeting:** March 21, 2024
County Administration Center
Room 310
1600 Pacific Highway
San Diego, CA 92101
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 https://videobookcase.com/california/oshsb/. 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.

# Occupational Safety and Health Standards Board

## Meeting Notice

**STATE OF CALIFORNIA** GAVIN NEWSOM, *Governor*

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 **February 15, 2024,** at 10:00 a.m.
in the Council Chambers of the Burbank City Hall
275 E. Olive Avenue, Burbank, California

as well as via the following:

- Videoconference at www.webex.com (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 **February 15, 2024,** at 10:00 a.m.
in the Council Chambers of the Burbank City Hall
275 E. Olive Avenue, Burbank, California

as well as via the following:

- Videoconference at www.webex.com (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 Business Meeting, the Board will conduct its monthly business.

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

Accommodations can include modifications of policies or procedures or provision of auxiliary aids or services. Accommodations include, but are not limited to, an Assistive Listening System (ALS), a Computer-Aided Transcription System or Communication Access Realtime Translation (CART), a

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

OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD

_____

DAVE THOMAS, Chairman

# Occupational Safety and Health Standards Board

## Business Meeting

# Occupational Safety and Health Standards Board

## Business Meeting
## Standards for Adoption

## Lead

MOVED, That the following resolution be adopted:

WHEREAS, On March 3, 2023, 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, Construction Safety Orders, section 1532.1 and General Industry Safety Orders, sections 5155 and 5198, Lead.

WHEREAS, Such Public Hearing was held in person in Sacramento, California and via teleconference and videoconference, on April 20, 2023, and there are now before the Occupational Safety and Health Standards Board the proposed revisions to Title 8, Construction Safety Orders, section 1532.1 and General Industry Safety Orders, sections 5155 and 5198, Lead; therefore, be it

RESOLVED By the Occupational Safety and Health Standards Board in regular meeting held in person in Burbank, California and via teleconference and videoconference, on February 15, 2024, that the proposed revisions to Title 8, Construction Safety Orders, section 1532.1 and General Industry Safety Orders, sections 5155 and 5198, Lead, 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

_____

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

BY:_____
Autumn Gonzalez, Chief Counsel

DATED: February 15, 2024

# TITLE 8

# CONSTRUCTION SAFETY ORDERS

# SECTION 1532.1

# GENERAL INDUSTRY SAFETY ORDERS

# SECTIONS 5155 AND 5198

# LEAD

## HYPERLINKS TO RULEMAKING DOCUMENTS:

TEXT FOR BOARD CONSIDERATION

FINAL STATEMENT OF REASONS

INITIAL STATEMENT OF REASONS

# FIRST 15-DAY NOTICE (JULY 7, 2023)

# LEAD

**From:** Amy Boas
**To:** DIR OSHSB
**Subject:** Written comments for Lead
**Date:** Wednesday, July 12, 2023 11:50:58 AM
**Attachments:** NELCO Worldwide Cal-OSHA Lead 15-Day Comment Period.pdf

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

To whom it may concern:

Please find attached our written comments for the 15-day comment period for Lead. These comments are for both Title 8 Section 1532.1 of the Construction Safety Orders and Title 8 Sections 5155 and 5198 for the General Industry Safety Orders.

Please contact me at 781-759-6946 or at the email above or Rick LeBlanc at 781-537-3001 or rleblanc@nelcoworldwide.com if you would like to discuss our comments.

Thank you,
Amy

**Amy Boas | Director of Environmental, Health & Safety**
**NELCO Worldwide**
2 Burlington Woods Dr, Suite 300, Burlington, MA 01803
Office 781.537.2019 | Mobile 781.759.6946
www.nelcoworldwide.com/ | ABoas@nelcoworldwide.com

July 12, 2023

Occupational Safety and Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833
Via email: oshsb@dir.ca.gov

**Re: Written Comments in Response to the 15-Day Comment Period for the Construction Safety Orders Section 1532.1 and General Industry Safety Orders Sections 5155 and 5198, Lead**

NELCO Worldwide appreciates the opportunity to provide our comments on the proposed revisions to the Cal/OSHA Lead regulations for construction and general industry safety orders.

As a reminder, NELCO Worldwide is a nationwide company that manufactures and installs radiation shielding systems for the Medical and Security Industries. We have a manufacturing facility in California and install our products throughout California and nationwide. We work with lead to shield all medical diagnostic imaging modalities that are used in small imaging centers; major and regional hospitals; research centers; dentist offices; and chiropractic offices. . Our shielding systems also are used with Radiation Therapy modalities for the treatment of cancer at free standing cancer centers, and also in public and private hospitals. Additionally, our shielding systems incorporating lead are used with scanning equipment for the security industry at borders, buildings, and airports. Our manufacturing practices fall under the general industry safety orders for lead (8 CCR 5198 and 8 CCR 5155) while our installation practices fall under the construction lead regulation (8 CCR 1532.1). Our NAICS code is 2389 Other Specialty Trade Contractors and we have been in business for 90 years, and operating a manufacturing facility in California since the early 1950's.

Our comments regarding the proposed regulations are:

1. Voluntary Removal or Restriction of An Employee:

   NELCO requests clarification on this requirement as it pertains to pre-existing company policies. NELCO currently has a medical removal blood lead limit of 18 ug/dL, which is more conservative than the proposed limit. Therefore, NELCO would trigger the proposed voluntary removal protection benefits.

   Can you please clarify what is meant by "due to the effects of lead exposure on the employee's health-related condition"? Does this mean that voluntary removal or restriction protection is only applicable if the employee has a health-related condition? What does it mean if a company has a policy to remove anyone with blood lead levels greater than 18 ug/dL, whether or not there is a health-related condition?

   Clarification is necessary because it is unfair for employers with pre-existing conservative policies to be held responsible for voluntary medical removal protection benefits or, even worse, to be motivated to eliminate their more conservative policies.

2. Medical Removal and Assembly Bill 35

   One aspect that is not addressed in the proposed medical removal limits is that Assembly Bill 35 requires that any blood lead test result of ≥ 20 ug/dL to be automatically reported by the analytical laboratory to Cal/OSHA and that

Cal/OSHA is required to conduct an investigation. It does not seem fair that Cal/OSHA can make a regulation, but that regulation isn't protective enough to prevent the triggering of a Cal/OSHA investigation. And also, that employers cannot proactively remove employees from lead exposure to avoid triggering an AB 35 investigation because they would be hit with voluntary medical removal benefits. It is a vicious circle. AB 35 needs to be plainly included or referenced in the General Industry and Construction Safety Orders so that it is evident to all employers and the medical removal protection benefits need to be modified.

3. SECAL

   NELCO has separately provided documentation to support our request for SECALs for the manufacturing of and construction of Medical and Industrial Radiation Shielding and lead burning. This information was provided on July 11, 2023.

NELCO has carefully considered the information provided in the proposed regulations published on July 7, 2023. Please contact me at 781-537-3001 or rleblanc@nelcoworldwide.com if you have any questions or wish to discuss our comments.

Sincerely,

Richard LeBlanc

Rick LeBlanc
President & CEO

**From:** JASMINE GONGORA
**To:** DIR OSHSB
**Subject:** Oppose Drastic Lead Standards Revisions
**Date:** Thursday, July 13, 2023 12:50:45 PM

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

Dear Chair David Thomas,

As a union contractor performing work in California, I am writing in strong opposition to the Cal/OSHA Standards Board's proposed changes to the California Code of Regulations related to lead in construction.

First and foremost, we are committed to the safety of all workers. It is our first and greatest priority. Regarding worksite safety for lead exposure, we demonstrate this commitment by providing rigorous worksite assessments, personal protective equipment, respiratory protection, good hygiene practices on job sites, good housekeeping, and training for all employees on how to safely work with/around lead to reduce exposure.

The negative Impacts and unintended consequences the proposed revisions to the Lead in Construction Standard (Construction Safety Orders, 8CCR 1532.1) will present significant costs to contractors for compliance and invasive medical and privacy infringing requirements for workers, without any evidence of being necessary to protect worker safety.

The proposed lead regulations would lead to dramatic cost increases for contractors of all sizes. The frequent blood lead level (BLL) testing, the requirement to provide portable "decontamination showers" on job sites (which employees who are "presumed" to be doing lead work above the PEL will be required to use after completion of work), and the record-keeping mandates, in addition to other requirements, will significantly drive-up construction costs. Many contractors will incur costs in the hundreds of thousands of dollars or more to comply. Larger companies could incur costs in the millions. Small contractors, including DBE, DVBE, and women-owned businesses, will be most negatively impacted, with many being put out of business by the untenable cost increases.

In addition, the proposed Permissible Exposure Limit (PEL) and Action Levels (AL) are so low that nearly all types of construction work will trigger compliance. This new regulation will impact hundreds of thousands of construction workers, across all building and construction trades, requiring workers to be BLL tested frequently. Even infrequent tasks will require medical surveillance (employee physical exams) and for employees to undergo pre-exposure BLL testing before the project begins. The frequent BLL testing of construction workers and the required reporting and data record keeping of private health information to the California Department of Public Health is extremely intrusive to workers lives and privacy.

Further, the proposed changes are unnecessary. The Division of Occupational Safety and Health (DOSH) has not shown that the current lead health and safety standards are failing to protect workers and that there is a serious and immediate issue within the industry that warrants such a drastic, costly, and invasive change to the current standards.

In closing, because the proposed lead standard revisions will significantly negatively impact construction companies and their workers, I believe more analysis is needed, including demonstrating that the extreme reduction in PELs is necessary and backed by science.

For these reasons we are opposed to the proposed revisions to the Lead in Construction Standard.

Thank you.

Regards,
JASMINE GONGORA
1433 N St
San Miguel, CA 93451

# WEATHERTIGHT ROOFING, INC.

P.O. BOX 5281 • HEMET, CA. 92544 • (951) 929-0557 • FAX: (951) 925-2161


July 11, 2023


RECEIVED

07/14/2023

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD


The Honorable David Thomas, Chair
Cal/OSHA Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

Re: Opposition to Proposed General Industry and Construction Lead Standards

Dear Chair Thomas,

I am writing in opposition to the Cal/OSHA Standards Board proposed changes to the California Code of Regulations related to lead in construction. The negative Impacts and unintended consequences the proposed revisions to the Lead in Construction Standard (Construction Safety Orders, 8CCR 1532.1) will present significant costs to contractors for compliance and invasive medical and privacy infringing requirements for workers, without any evidence of being necessary to protect worker safety.

The proposed lead regulations would lead to dramatic cost increases for contractors of all sizes. The frequent blood lead level (BLL) testing, the requirement to provide portable "decontamination showers" on job sites (which employees who are "presumed" to be doing lead work above the PEL will be required to use after completion of work), and the record-keeping mandates, in addition to other requirements, will significantly drive-up construction costs. Many contractors will incur costs in the hundreds of thousands of dollars or more to comply. Larger companies could incur costs in the millions. Small contractors, including DBE, DVBE, and women-owned businesses, will be most negatively impacted, with many being put out of business by the untenable cost increases.

In addition, the proposed Permissible Exposure Limit (PEL) and Action Levels (AL) are so low that nearly all types of construction work will trigger compliance. This new regulation will impact hundreds of thousands of construction workers, across all building and construction trades, requiring workers to be BLL tested frequently. Even infrequent tasks will require medical surveillance (employee physical exams) and for employees to undergo pre-exposure BLL testing before the project begins. The frequent BLL testing of construction workers and the required reporting and data record keeping of private health information to the California Department of Public Health is extremely intrusive to workers lives and privacy.

Further, the proposed changes are unnecessary. The Division of Occupational Safety and Health (DOSH) has not shown that the current lead health and safety standards are failing to protect workers and that there is a serious and immediate issue within the industry that warrants such a drastic, costly and invasive change to the current standards.

In closing, because the proposed lead standard revisions will significantly negatively impact construction companies and their workers, I believe more analysis is needed, including demonstrating that the extreme reduction in PELs is necessary and backed by science.

For these reasons we are opposed to the proposed revisions to the Lead in Construction Standards.

Sincerely,

*Guy T. Schembri*

Weathertight Roofing Inc
951-929-0557

**From:** Stephanie Phelps
**To:** DIR OSHSB
**Subject:** Re: Letter of Support, California El Camino Real Association of Occupational Health Nurses
**Date:** Monday, July 17, 2023 4:55:54 PM

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

To whom it may concern,
The California El Camino Real Association of Occupational Health Nurses (CECRAOHN) Board of Directors would like to acknowledge the PLHCP language and urge the adoption of the updated Construction and GIS Lead standards at the upcoming meeting. Thank you.

Sincerely,
Stephanie Phelps
CECRAOHN President

On Tue, Oct 25, 2022 at 7:26 PM Stephanie Phelps <sphelps@gmail.com> wrote:

> To whom it may concern,
> The California El Camino Real Association of Occupational Health Nurses (CECRAOHN) Board of Directors has voted to support Title 8: Section 1512 of the Construction Safety Orders and Section 3400 of the General Industry Safety Orders. Please see the attached letter, thank you for your time.
>
> Sincerely,
> Stephanie Phelps
> CECRAOHN President

| | |
|---|---|
| **From:** | Marc Connerly |
| **To:** | DIR OSHSB |
| **Cc:** | Bruce Wick (bwick@housingcontractors.org); Steve Johnson |
| **Subject:** | Cal/OSHA Proposed Lead Regulations - 15 Day Language Construction Industry Coalition Response |
| **Date:** | Wednesday, July 19, 2023 2:45:07 PM |
| **Attachments:** | 2023 07 18 CalOSHA Lead Coalition Letter - 15 Day Comment Period Response.pdf |

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To Whom It May Concern:

On behalf of the 25 construction organizations listed on page 4 of the attached letter, please find our response to the "Notice of Proposed Modifications to California Code of Regulations (Lead)" issued on July 7, 2023.

We would be most appreciative if this letter would be shared with the Standards Board members prior to their meeting in Sacramento tomorrow.

This letter supersedes the letter previously submitted by the construction industry coalition on April 17, 2023.

Please feel free to email me at this address with any questions.

Best regards,

Marc Connerly, Executive Director
Roofing Contractors Association of California
2235 Park Towne Cir., 2nd Floor
Sacramento, CA 95825
O: 916.485.6318
C: 916.214.6495
F: 916.485.6374
www.rcacal.com
*RCAC is dedicated to the protection and advancement of the California roofing industry in legislative, regulatory and business affairs.*

July 18, 2023

The Honorable David Thomas, Chair
Cal/OSHA Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

Re: Response to "Cal/OSHA Standards Board 15-Day Comment Period", issued July 7, 2023, Proposed General Industry and Construction Lead Standards.

The undersigned organizations have reviewed the Cal/OSHA Standards Board proposed changes issued in the July 7, 2023 "15-Day Comment Period" to the "California Code of Regulations, Title 8, Section 1532.1 Lead", and we respectfully submit the following comments and recommendations for the lead in construction standard.

**Procedural Issues**

As a coalition of construction industry employer groups, and as concerned stakeholders, we take issue with a proposed regulatory change 15-Day Notice issued late in the afternoon on a Friday. It takes a considerable amount of time to organize a meeting with multiple employer groups and respond to the 15-Day Notice changes, and it takes away 3 days of valuable collaboration time to provide an informed response. For future notices, a Monday to Thursday notice is appropriate.

This coalition appreciates that the infeasibility consideration of providing showers was added back into the regulation and that some of the requirements for initial blood lead level testing were removed. To be clear, this was a deviation from the Federal language and should not have been changed in the first place.

**Ongoing issues with the proposed Lead in Construction 15-Day Notice**

We continue to have issues with the following revisions that remain in the proposed regulation:

- An unprecedented reduction in the PEL and AL. Reductions of 80% and 93% respectively, have no justification from the information provided by Cal/OSHA. Action Levels and Permissible Exposure Limits must be set at reasonable and achievable levels. Cal/OSHA has not demonstrated a compelling need for reducing the Action Level and Permissible Exposure Limits to these unrealistic levels.
- Adding unnecessary and confusing definitions for altering of lead and changing the definition for "competent person" to "supervisor". This change in definition imposes a significant training and cost burden on employers. There is no rationale that explains the need for adding in a 40-Hour training requirement in the regulation for supervisors. **These additional training costs are outlined below.**
- Expanding the "presumed" exposure of trigger tasks regardless of frequency and duration of the task to require "interim protection" is not a feasible approach to protecting employees from lead exposure. Additionally, there is no rationale for moving more trigger tasks into the "Level 3 Trigger Task" designation.
- The requirement to have all contractors with trigger task exposures, beyond Level 1, have individual exposure assessments mandated is unnecessary and burdensome. We estimate that approximately 86,000 contractors in construction would each have to hire a Certified Industrial Hygienist (CIH) to conduct air

monitoring. Combine this with air monitoring requirements for tens of thousands of general industry employers, and there are simply not enough CIHs to meet this demand. If this exposure assessment requirement is not changed, it will require a delay of at least 3 years for industry to catch up prior to Cal/OSHA implementing enforcement. **The cost estimate for air monitoring exposure assessments is outlined below.**

In the absence of recent and meaningful advisory committee meetings and a side-by-side comparison of the original lead in construction proposal, stakeholders were not allowed the time or opportunity to present the real costs to employers. The SRIA that was offered with the proposed changes to the lead regulation presented is outdated and provides inaccurate cost estimates. Therefore, we have compiled cost projections over 10 years that reflect "real world" costs as follows:

CalOSHA asserts that compliance costs to each employer in year 1 will be $10,647; and $8,514 per year in subsequent years. Small Businesses are defined as less than 100 employees, CalOSHA estimates the compliance costs to be $5,989 in year 1; and $4,837 per year in subsequent years.

**The actual projected total costs for year 1 are $14,695,695,320.**
**The 10-year projected costs are $145,224,878,000. The SRIA 10-year projected costs are $862,818,517.**
**Based on 86,417 Class C licensees, first year costs will be $170,055 per employer.**
Costs have been calculated based on 86,417 Class C licensees; 50,000 Supervisors, 110,000 employees (for total employee group of 160,000); and the average WCIRB wage rate of $52 p/hour for the impacted Class C licensees.

| | |
|---|---|
| Initial Exposure Assessment | $ 2,160,425,000 |
| Blood Lead Level Testing | $ 116,340,000 |
| Training – Supervisors & Employees | $ 259,360,000 |
| Compliance Program | $ 179,747,360 |
| Respiratory Protection | $ 258,814,600 |
| Personnel Protective Clothing | $ 697,254,000 |
| Changing Stations | $ 86,417,000 |
| Eating Facilities | $ 86,417,000 |
| Regulated Areas | $ 86,417,000 |
| Notification of Blood Level Testing | $ 21,840,000 |
| Medical Exams | $ 10,500,000 |
| Recordkeeping | $ 179,747,360 |
| Showering: Facilities, Supplies, PH | $ 10,552,416,000 |

**Showering and changing stations costs could potentially increase by 50% to 100% to accommodate separate showering and changing facilities for women in construction.*
**Infeasibility for showering includes collection, containment, transportation, locked storage, and abatement of lead-contaminated water, as well as lack of proximity to a water lead abatement provider.*
**Infeasibility for laundering lead-contaminated clothing due to lack of vendors that will launder lead-contaminated clothing.*
**Infeasibility of creating a separate eating facility on a residential jobsite.*

Governor Newsom has said his Administration is taking an "all of government" approach to the decarbonization of existing buildings in order for the state to achieve carbon neutrality by 2045. Under Cal/OSHA staff's proposed AL and PEL, a significant and new cost multiple will be added to the price tag

of building decarbonization for contractors and their customers. Ironically, these new costs will detract from the actual goal of building decarbonization. Market access to the capital needed for these projects by public and private building owners is already strained to the limit. Has Cal/OSHA staff considered the fact that any new and unnecessary costs created by this rule directly threatens our state's ability to fund and therefore achieve the Administration's goal of carbon-neutrality by 2045?

As a collective group of concerned employer organizations, we feel that the expanded scope of the proposed changes to the lead in construction regulation has placed an unreasonable burden on construction employers. Therefore, we request the following:

a. Cal/OSHA to provide stakeholders with a rationale for the proposed changes in the lead regulations so that a reasonable discussion can be held demonstrating the need for change.
b. A revision of the SRIA. The current SRIA was based on outdated information and was woefully inadequate in its analysis. Cal/OSHA Standards Board Members, stakeholders and the regulated public deserve to know the real costs of the proposed lead regulation revision.
c. A new 15-Day Notice with a revised proposal, specifically to the lead in construction regulation. The 15-Day Notice to be issued between a Monday and Thursday. The proposal to include:
    i. Adjusting the Action Level and Permissible Exposure Limit to a reasonable level, clearly supported by evidence.
    ii. Removing the requirement for supervisors to have "Competent Person" 40-Hour Lead training. Replace the word "supervisor" with "Competent Person" in proposed section 1532.1(b)-definitions.
    iii. Aligning trigger tasks in construction with Federal Lead in Construction Regulations.
    iv. Allowing objective data to be used by employers as an option to requiring each employer to conduct an initial exposure assessment.
    v. A three-year delay of enforcement after the revised lead regulations become effective. The proposed changes have imposed numerous burdens on employers related to training requirements, exposure assessments, lowered AL and PEL, changing trigger tasks, medical surveillance and blood lead level testing, required changes in operations and providing additional equipment to comply with revised regulations, revised written programs, lowered medical removal threshold for blood lead levels in employees, and many more requirements. The cumulative effect of the many regulatory changes will take this amount of time for employers to comply fully.

In conclusion, we offer these comments as an addendum to the April 17, 2023, letter of record to the Cal/OSHA Standards Board. The focus of this letter is to stay within the request of the Standards Board to only comment on the 15-Day Notice issued on July 7, 2023. The scope of the total changes to the lead regulation is truly far reaching and imposes a significant burden on employers. It is the hope of this construction coalition that the information provided in this letter will shed additional light on the impact the proposed changes will have on all of industry, and specifically the construction industry. We remain open to discussion with Cal/OSHA and the Standards Board on the above concerns and are requesting an opportunity to have those discussions in a meaningful and productive way.

Respectfully,


**American Subcontractors Association of California**


**Associated Roofing Contractors of the Bay Area Counties**


**Building Owners and Managers Association of California**


**California Association of Sheet Metal and Air Conditioning Contractors, National Association**


**California Building Industry Association**


**California Business Properties Association**


**California Framing Contractors Association**


**Construction Employers' Association**


**Flasher Barricade Association**


**Housing Contractors of California**


**National Electrical Contractors Association**


**National Roofing Contractors Association**


**Northern California Allied Trades**


**Painting and Decorating Contractors of California**


**Roofing Contractors Association of California**


**Southern California Contractors Association**


**Southern California Glass Management Association**


**Union Roofing Contractors Association**


**United Contractors**


**Wall and Ceiling Alliance**


**Western Electrical Contractors Association**


**Western Painting & Coatings Contractors Association**


**Western Wall & Ceiling Contractors Association**

**Also:**
**Residential Contractors Association**
**Western Steel Council**

**From:** Christy Christensen
**To:** DIR OSHSB
**Subject:** BCI Comment on 15-Day Changes
**Date:** Friday, July 21, 2023 3:49:03 PM
**Attachments:** image001.png
image002.png
BCI Comment on 15-Day Changes 072023.pdf

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Good Afternoon –
Please see the attached letter from our client, Battery Council International (BCI), regarding the 15-Day Package for Notice of Proposed Rulemaking – Construction Safety Orders Section 1532.1 and General Industry Safety Orders Section 5155 and 5198.
Thank you

Christy Christensen
KP PUBLIC AFFAIRS

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July 21, 2023

***via email***: oshsb@dir.ca.gov

Attn: Sarah Money
Occupational Safety and health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

**RE: 15-Day Package for Notice of Proposed Rulemaking – Construction Safety Orders Section 1532.1 and General Industry Safety Orders Section 5155 and 5198.**

Dear Ms. Money:

Battery Council International (BCI) appreciates the opportunity to continue participation in the California Occupational Safety and Health Standards Board's (Standards Board) review of occupational lead standards. BCI greatly appreciates the California Department of Industrial Relations (DIR), Division Occupational Safety and Health's (Cal/OSHA) in-depth review and consideration of BCI's comments submitted in response to the Notice of Proposed Rulemaking on April 20, 2023. In response to the 15-day package, we offer the following comments.

1. **Definitional Changes and Exceptions**

   BCI supports the following changes to Section 5198, General Industry Safety Orders reflected in the Occupational Safety and Health Standards Board's (Board) Notice of Proposed Modifications (15-Day Notice) for the revised occupational exposure standards for lead (revised lead standards) currently under consideration by the Board:

   a. Replacing the term "presumed *hazardous* lead work" with "presumed *significant* lead work" (Subsection (b)).

b. Adding an exception from the general hygiene requirements allowing employers to provide employees with access to potable drinking water (Subsection (i)(1)(A)).

c. Expanding the exception from medical surveillance for employees who are not exposed to lead at or above the action level for 30 or more days (increased from 10) in any 12 consecutive months (Subsection (j)(1)(B)(1)).

d. Adding an exception from initial blood lead testing for employees who have had a blood lead test in the preceding two months (Subsection (j)(1)(A)(1)).

e. A new exception from employee medical removal if an employee's last blood test indicates a blood lead level below 15µg/dl (Subsection (k)(1)(C)).

These changes are responsive to the comments we submitted during the previous 45-day comment period on the revised lead standards. We believe these changes will improve the workability of the regulations, facilitating higher rates of employer compliance and improved protection for employees.

Regarding the proposed exception for employee access to potable drinking water, the revised language in the 15-Day Notice requires additional annual employee training (Subsection (l)(1)(B)), "written safe hydration procedures," and a demonstration by the employer that employees following those procedures are not exposed to lead above the proposed permissible exposure level (PEL) and that water is consumed in a manner that prevents ingestion of lead. These additional requirements are not defined. More importantly, employers would not be able to comply with the language as written because the explicit purpose of the exception is to allow carefully controlled use of hydration stations in areas with air-lead levels *above* the PEL ("at or below 50 µg/m3"). Thus, employers would not be able to demonstrate that employees "are not exposed to lead above the PEL." That text should be removed from the final rule text.

BCI requests clarification that the information previously submitted to the Division describing current practices and procedures for providing safe drinking water in lead exposed areas at battery manufacturing facilities[1], coupled with the required training schedule, will satisfy these additional requirements.

**2. Compliance Schedule**

BCI also supports the Division's proposals to allow a compliance period for the change room, shower and lunchroom requirements triggered by exposures above the proposed PEL (Subsections (i)(2), (3), and (4)). However, a minimum three-year timeframe will be necessary to meet these requirements because where such facilities are newly required, they will necessitate physical alterations and construction, a process that is lengthened considerably by the need for

[1] E-mail from Jeff Sickenger, KP Public Affairs, to Susan Eckhardt, Senior Safety Engineer, Cal/OSHA Research & Standards Health Unit, dated May 19, 2023, describing typical hygiene measures for hydration stations currently in use at battery manufacturing facilities in California and elsewhere in the United States.

multiple reviews and approvals, including regulatory approvals. BCI reiterates its request for a compliance period of three years for these requirements.

Further, the revised language in the 15-Day Notice does not respond to our prior requests for reasonable compliance periods for requirements triggered by exposures above the proposed action level (AL) or the balance of the requirements triggered by exposures above the proposed PEL. In particular, and as detailed in the analysis by All4 attached to our previous comments, there are many practical impediments to meeting these requirements by the effective date of the revised lead standards, especially requirements for implementation of engineering controls.[2] A reasonable compliance period responds to the need for a mechanism in the revised lead standards that protects employers who are actively working toward compliance from notices of violation, enforcement actions, and penalties for delays they cannot control.

We believe the compliance schedule requirement in Subsection (e)(2)(B)(5) was intended for this purpose.[3] We propose the following language that utilizes the compliance program requirement to establish a compliance schedule tailored to the needs of individual employers and facilities as an alternative to the one-size-fits-all default approach proposed in our previous comments.

> Subsection (e)(1)(A): Except as specified in subsection (e)(1)(B), where any employee is exposed to lead above the permissible exposure limit (PEL), the employer shall implement engineering and work practice controls, including administrative controls, to reduce and maintain employee exposure to lead at or below the PEL, except to the extent that the employer can demonstrate that such controls are not feasible. Where employee exposures are greater than the PEL, but not greater than 50 µg/m$^3$ without regard to the use of respirators, this requirement is effective [OAL insert one year from the effective date here] or by the date specified in the schedule for implementation of the compliance program required by subsection (e)(2)(B)(5), whichever is later.

This language is consistent with the revised language in the 15-day Notice for the above-noted requirements and would balance the desire to expedite compliance with the practical realities of achieving a 10 µg/m$^3$ PEL in enclosed industrial settings. We request that the Division include this or functionally equivalent language in a subsequent 15-day package.

We also request reconsideration of a one-year compliance schedule for requirements triggered by the proposed AL given the complexities of determining whether a given work area or work

[2] In its April 17, 2023 memorandum, All4 concludes that permitting and installation of a baghouse in Southern California to meet the proposed PEL, from initial planning through to installation and start up, will likely require at least 20 to 30 months, depending on the required equipment and existing infrastructure at the site. All4 further notes that this timeline does not account for significant upgrades that may be needed for existing infrastructure, such as power supply or fire sprinkler system improvements, which can add another 6 to 18 months to a project timeline.

[3] Subsection (e)(2) requires employers to establish a written compliance program to reduce exposures to or below the proposed PEL (or applicable SECAL) that includes "[a] detailed schedule for implementation of the program, including documentation such as copies of purchase orders for equipment, construction contracts, etc."

practice would result in employee exposure above the proposed AL and the impact of the expected exponential increase in blood lead testing on access to qualified medical professionals (to oversee design and implementation of medical surveillance programs) and laboratory analytical services.

**3. Reconsideration of Other Previously Submitted Comments**

BCI also requests that the Division reconsider the balance of the comments we submitted during the 45-day comment period, with emphasis on the following:

a. Reinstating *de minimis* applicability thresholds (e.g., exposure above the proposed AL or PEL) removed in the 45-day language, including for work involving articles or materials that are not covered in the definition of "presumed significant lead work;" consumption of food or beverage, use of tobacco products or cosmetics; and washing exposed skin prior to entering eating areas, eating, drinking, smoking or applying cosmetics, or at the end of a shift.

b. Differentiating blood lead levels (BLL) attributable to occupational exposures from BLLs attributable to non-occupational sources of lead, such as lead-based paint, drinking water from lead-containing service lines or the employee's participation in recreational activities (e.g., shooting and fishing, home renovations, antiques refurbishing, etc.) to determine the applicability of requirements to provide medical removal protection benefits.

c. Removing the requirement for two consecutive blood lead tests before an employee may return to work and the proposed requirement in Subsection (k)(3)(A) that blood lead tests be taken at least 30 days apart. This change would be consistent with the proposed exception from employee medical removal if an employee's last blood test indicates a blood lead level below 15µg/dl (Subsection (k)(1)(C)).

d. Allowing alternative work assignments for employees with elevated BLLs in areas where lead exposures are below the PEL.

e. Revising the proposed AL and PEL to levels that reduce the compliance burden on employers consistent with evidence from employee blood lead monitoring in the lead battery industry and other industries demonstrating the lack of correlation between air lead concentrations and blood lead levels.

These comments and our proposed changes are intended to ensure consistent interpretation and facilitate compliance with the proposed regulations, considering the practical realities of affected workplaces. They do not alter the requirements to achieve the lower BLLs proposed in the revised lead standards, and therefore will not compromise the public health protection objectives of the revised lead standards.

Sincerely,

Roger Miksad
President and Executive Director

cc: David Thomas, Chair, Cal-OSHA Standards Board
Members, Cal-OSHA Standards Board
Christina Shupe, Executive Officer, Cal-OSHA Standards Board
Steve Smith, Cal-OSHA Standards Board
Susan Eckhardt, Division of Occupational Safety and Health

**From:** Dane Farrell
**To:** DIR OSHSB
**Subject:** ACOEM Comments - Proposed Modifications to Proposed Lead Standard Revisions
**Date:** Monday, July 24, 2023 9:17:00 AM
**Attachments:** image001.png
image002.png
image005.png
image006.png
ACOEM Letter CalOSHA Lead Standard Proposal Proposed Modifications - 7.24.23.pdf

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California Occupational Safety and Health Standards Board,

Attached are written comments from the American College of Occupational and Environmental Medicine (ACOEM) in response to the modifications published July 7, 2023, which are being considered in relation to the proposed amendments to Title 8: Section 1532.1 and General Industry Safety Orders Sections 5155 and 5198 related to Lead

ACOEM is the nation's largest medical society dedicated to promoting employee health through preventive medicine, clinical care, research, and education. Please let us know if we can provide any additional information, and we would be happy to answer any questions related to the attached comments.

Thank you,
Dane Farrell

Government Affairs Representative
American College of Occupational and Environmental Medicine (ACOEM)

**Dane Farrell**
Director, Government Affairs
Cascade Associates LLC

**Phone**: 703-989-4734
**Email**: Dane@cascadeassociates.net
10 G Street NE, Suite 600
Washington, DC 20002

CASCADE ASSOCIATES
*Serving the Nation from Capitol Hill*

AMERICAN COLLEGE OF
OCCUPATIONAL AND
ENVIRONMENTAL MEDICINE

**Submitted via: oshsb@dir.ca.gov**

July 24, 2023

The Honorable David Thompson, Chair
Occupational Safety & Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

**RE: Comments on Proposed Modifications to Proposed Regulations to Amend the Cal/OSHA Lead Standards**

Dear Mr. Thompson and members of the Board:

On behalf of the American College of Occupational and Environmental Medicine (ACOEM), I am writing to reiterate our strong support for the proposed amendments to the Cal/OSHA lead standards, as outlined in your rule-making announcement of March 3, 2023, affecting 8 CCR, Sections 1532.1, 5155 and 5198. We appreciate that the Board is pursuing modifications to the text dated July 7, 2023, including provisions that seek to clarify the delivery of health care services required by the proposed standard.

We urge the Board to consider further clarification in the context of the new proposed regulatory language on "Physician or other licensed health care professional (PLHCP)." **ACOEM believes that mandated medical surveillance and blood lead monitoring provisions present complex issues related to lead exposure and the pharmacokinetics of blood lead. Accordingly, they should be supervised by a physician (M.D. or D.O.) with experience and training in occupational lead medical surveillance with board certification in occupational medicine, medical toxicology, or another American Board of Medical Specialties (ABMS) discipline with experience in leading a lead surveillance program.**

Regrettably, we are aware that in the past, some employers have engaged other healthcare professionals, including paramedics or chiropractors, to oversee their mandated medical surveillance programs. Providers with these credentials lack the requisite training, knowledge, and experience to evaluate the complex health effects of lead exposure on multiple organ systems.

We would also direct the Board to consider any comments provided by the Western Occupational and Environmental Medical Association (WOEMA), which has actively participated in the Cal/OSHA Advisory Committee on the lead standards.

---

If you should have any questions or need additional information, please contact Dane Farrell (Dane@cascadeassociates.net), ACOEM's Government Affairs Representative.

Founded in 1916, ACOEM is the nation's largest medical society dedicated to promoting employee health through preventive medicine, clinical care, research, and education. The College represents physicians and other healthcare professionals specializing in occupational and environmental medicine (OEM) who are devoted to preventing and managing occupational injuries.

Thank you for your consideration, and we look forward to collaborating with the Division and the Standards Board in finalizing these critical revisions.

Sincerely,

Kenji Saito, MD, JD, FACOEM
President
American College of Occupational and Environmental Medicine (ACOEM)

| | |
|---|---|
| **From:** | Christy Christensen |
| **To:** | DIR OSHSB |
| **Subject:** | Coalition Letter re: 15-Day Notice for Revised Lead Standards |
| **Date:** | Monday, July 24, 2023 1:43:56 PM |
| **Attachments:** | image001.png<br>image002.png<br>23.07.24 Coalition Letter re 15-Day Notice for Revised Lead Standards.pdf |

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Good Afternoon –
Please see the attached coalition letter on 15-Day Notice of Proposed Modifications – Section 1532.1 of the Construction Safety Orders; and Sections 5155 and 5198 of the General Industry Safety Orders.
Thank you

Christy Christensen
KP PUBLIC AFFAIRS

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July 24, 2023

Via U.S. Mail and Email (oshsb@dir.ca.gov)

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

15-Day Notice of Proposed Modifications – Section 1532.1 of the Construction Safety Orders; and Sections 5155 and 5198 of the General Industry Safety Orders

To Whom It May Concern:

The undersigned organizations appreciate the opportunity to work with the Occupational Safety and Health Standards Board (Standards Board) as it continues to review and revise occupational standards for

lead exposure (revised lead standards). We also appreciate the California Department of Industrial Relations, Division Occupational Safety and Health's (Division) consideration of our prior April 20, 2023 comments on the revised lead standards, and provide the following additional comments in response to the revised Section 5198 language included in the Standards Board's July 7, 2023 15-Day Notice of Proposed Modifications:

- We support the Division's decision to change the defined term "presumed hazardous lead work" to "presumed significant lead work."

- We appreciate the Division's proposal to provide a one-year compliance period for the change room, shower, and lunchroom requirements triggered by exposures above the proposed permissible exposure level (PEL), but believe that one year is insufficient due to the construction, and associated budgeting, planning, and permitting, that may be required. These limited compliance periods also do not apply to engineering controls that many employers will need to implement to achieve a 10 $\mu g/m^3$ PEL, especially in enclosed work areas. We believe a three-year compliance period will be necessary in many cases for employers to comply with PEL-related requirements.

- We reiterate our prior comments that a reasonable compliance schedule is necessary to comply with other requirements, such as requirements triggered by exposures above the proposed action level (AL) and the balance of the requirements triggered by exposures above the proposed PEL. The Division must include a mechanism that protects employers who are diligently working toward compliance from notices of violation, enforcement actions, and penalties for delays they cannot control. We continue to recommend that the Division incorporate the compliance schedule recommendations in our November 14, 2022 letter. As we also articulated in our more recent April 20, 2023 letter, we remain concerned about whether the Division has sufficiently demonstrated adequate laboratory capacity for the proposed required blood lead testing, and a reasonable compliance schedule would allow for a more gradual increase in laboratory capacity in a manner that allows for, rather than impedes, employer compliance.

- We maintain that medical removal benefits should be limited to occupational exposures. Elevated blood lead levels can result from a wide range of exposures, and non-occupational and recreational exposures can lead to blood-lead levels that exceed the Division's proposed medical removal levels. We request that the Division reconsider our prior recommendation to include additional language clarifying that medical removal benefits are required only when: (1) workplace exposures are determined to exceed relevant action levels; and (2) a medical examination by a qualified physician concludes that those workplace exposures are the primary cause of the employee's elevated blood lead level.

- We appreciate the Division's inclusion of an exception from the general hygiene requirements to allow employers to provide employees with access to potable drinking water. This exception not

only allows employers to better protect their employees by providing access to drinking water to prevent heat illness-related injuries, but also allows employers to comply with other relevant laws, regulations, and orders related to heat illness prevention. We request, however, that the Division provide additional clarification regarding the requirement to provide "training on and ensure compliance with written safe hydration procedures." This requirement is not defined and is critical to both employee protection and employer compliance with the revised lead standards. We also request deletion of the last sentence of the exception requiring an employer to demonstrate that employees following these procedures are not exposed to lead above the PEL given that this exception expressly applies in areas with air-lead levels above the PEL.

- Finally, we reiterate our prior comment that the Division should reconsider the extent of the proposed reductions in airborne lead exposure limits, which would create more hazardous conditions for employees working in enclosed and confined spaces. Where the proposed limits are not possible to achieve, employees would need to wear Tyvek suits and respirators and would be at much greater risk of heat illness, especially during summer months. This type of work has been performed for decades under the previous regulation, with little evidence of worker blood lead levels exceeding the proposed blood-lead targets. Historically, this success has been achieved through hygiene measures, not through lower airborne exposure levels. In particular, the minimal gains in employee health protection that can be expected from the proposed five-fold reduction in the PEL are not justified when weighed against the greater potential for employee harm from increased heat exposure.

We would like to thank you again for your consideration of our additional comments.

Sincerely,

Erin Smith, Project Manager
Copper Development Association

Jack Monger, CEO
Industrial Environmental Association

Kerry Stackpole, FASAE CAE, CEO & Executive Director
Plumbing Manufacturers International

Christopher E. Ochoa, Esq., Senior Counsel – Codes, Regulatory and Legislative Affairs
California Building Industry Association

James Simonelli, Executive Director
California Metals Coalition

Matthew Hargrove, President & Chief Executive Officer
California Business Properties Association

Roger Miksad, Executive Vice President and General Counsel
Battery Council International

Doug Kurkul, CEO
American Foundry Society

Mark DeLaquil, General Counsel
Association of Battery Recyclers

Benjamin Erwin, Deputy General Counsel
National Shooting Sports Foundation, Inc.

Lawrence Gayden, Policy Director
California Manufacturers and Technology Association

Andrea Abergel, Manager of Water Policy
California Municipal Utilities Association

Cris Williams, Ph.D., Senior Scientist
International Lead Association

Bryan Leiker, Executive Director
Metal Finishing Association of California

Eric Stuart, Vice President, Energy, Environment, and Infrastructure Policy
Steel Manufacturers Association

Rodney Pierini, President and CEO
CAWA – Representing the Automotive Parts Industry

Lisa Spooner Foshee, SVP, Government Affairs and General Counsel
Auto Care Association

Ryan Allain, Director, Government Affairs
California Retailers Association

**From:** Dan Glucksman
**To:** DIR OSHSB
**Cc:** DIR OSHSB
**Subject:** ISEA Comments / OSHRB 15-day comment period / Lead amendments
**Date:** Monday, July 24, 2023 2:18:52 PM
**Attachments:** ISEA.Cal.OSHA.15.day.comment.lead.pdf
Cal.OSHA.Lead.Proposed.Amendments.FINAL.pdf

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Dear OSHSB staff and board members,

Attached are ISEA's comments to the 15-day comment period for the proposed lead amendments. As noted in our comments, we are also attaching our original comments for your convenience.

Please contact me with any questions, or for more information, about either of our comments.

Sincerely,

Dan Glucksman

Daniel Glucksman
Senior Director for Policy
Int'l Safety Equipment Assn
www.safetyequipment.org
dglucksman@safetyequipment.org
703-795-6064

July 24, 2023

Mr. David Thomas
Chair
Occupational Safety and Health Standards Board
2520 Venture Oaks Way
Suite 350
Sacramento, CA 95833
oshsb@dir.ca.gov

Re: Proposed Lead Amendments

Dear Mr. Thomas:

Cal/OSHA, in its proposed lead amendments, explains its potential prohibition of disposable respirator use is based on a belief that these devices cannot achieve a good seal to the worker's face[1]. The International Safety Equipment Association (ISEA) believes this is **not** the case as demonstrated in the research and analysis by the Occupational Safety and Health Administration (OSHA) as it developed the Assigned Protection Factors (APF) for respirators, and also by decades-long recognized workplace practice by a vast number of workers.

To summarize our earlier comments, which are also attached, OSHA assigned an APF of 10 to disposable respirators, commonly known as filtering facepiece respirators, with designations ranging from N95 to P100. The final rule was published on August 24, 2006, see 71 FR 50122

Filtering facepiece respirators (disposable respirators) would not have earned this number without a consistent, tight seal to the worker's face. The scientific evidence considered by OSHA during the development of the APF of 10 for half facepiece respirators – including both elastomeric half facepiece respirators and filtering facepiece respirators – includes vast amounts of workplace protection factor (WPF) data[2]. WPF studies are a key piece of evidence illustrating the level of protection a respirator can be expected to provide when used within a complete respiratory protection program, including fit testing and training. The database OSHA compiled during the development of its final APF rule includes 1,339

[1] In the Proposed Lead Amendments to the California Code of Regulations, Subsection (f)(3)(A), it states "In this subsection, a requirement would be added that would prohibit employers from selecting or using filtering facepiece respirators to protect their employees when respirator use is required." The reasoning for this change is stated in the Proposed Amendments as, "filtering facepiece respirators are unlikely to provide adequate protection to employees, due to the difficulty in achieving and maintaining a satisfactory seal on the employee's face."

[2] "…best available data support an APF of 10 for half mask elastomerics and filtering facepieces. The final APF half mask database consists of 1,339 data points from 16 different studies, which represents a data increase of 46% over the 917 data points initially available for analysis in the proposal. The full data set indicates: (a) The precise APF for filtering facepieces is 18.1, with a 90% confidence interval between 15 and 22; (b) the precise APF for elastomerics is 12.0, with a 90% confidence interval between 7 and 14; and (c) that a greater percentage of elastomerics failed to achieve an APF of 10 (4.5%) than filtering facepieces (1.6%). In both cases, fewer than 5% of the respirators failed to achieve an APF of 10, which is the maximum failure rate historically allowed by both OSHA and other standards-setting bodies."(*71 FR 50142*).

WPF measurements – 760 collected from filtering facepiece respirators and 579 collected from elastomeric respirators[3].

The association asks Cal/OSHA and the Review Board to consider the following factors, which suggest filtering facepiece respirators protect workers as they conduct lead abatement activities:

- Based on site-specific hazard evaluations:
    - The totality of the OSHA AFP rulemaking, which was a comprehensive study of respiratory protection science and best practices.
    - FFRs are ideal because they're disposable. Reusable respirators such as elastomeric facepieces and PAPRs need to be cleaned to address surface lead contamination.
    - It is difficult to clean lead from surfaces.
    - Employers must have a cleaning facility, because water alone will not effectively remove lead dust from a reusable respirator. (Here are OSHA's respirator cleaning guides)
    - NIOSH recommendations for cleaning lead from PPE specifies specialty products (https://www.cdc.gov/niosh/topics/lead/workerinfo.html).
        - This NIH page contains information about such specialty products to clean lead from surfaces.
    - Some workplaces where workers are exposed to lead might not have adequate cleaning facilities.
    - It's possible that workers and their families could be at higher risk for ingestion exposure to lead due to the complex process of effectively cleaning lead from respirators.

- FFRs are affordable and effective options for keeping workers safe from lead exposure. There would be an increased economic burden on smaller employers. In a recent search on Grainger.com, a thermoplastic half-mask respirator with two P100 filters is listed for $47.00. This is an example of the basic elastomeric half-mask respirator to keep workers safe from lead exposures. By contrast, N95s, again listed at Grainger.com, are between $1-$2 based on the brand and in quantities of 20/box; the cost per filtering facepiece respirator is less when larger quantities are purchased.

Please feel free to contact me at dglucksman@safetyequipment.org or at 703-795-6064 if you have any questions, or would like more information about, these comments.

Sincerely,

Daniel I. Glucksman
Senior Director for Policy

[3] "In this rulemaking, OSHA also is superseding the existing APF requirements in its substance specific standards. As noted in section V of this preamble ("Summary of the Final Economic Analysis and Regulatory Flexibility Analysis"), the Agency estimates that the final APFs will reduce significantly employee exposures to the hazardous airborne substances regulated by these substance specific standards, especially asbestos, **lead**, cotton dust, and arsenic."(emphasis added)

INTERNATIONAL SAFETY EQUIPMENT ASSOCIATION

1101 Wilson Blvd., Suite 1425
Arlington, VA 22033

April 20, 2023

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

**Re: Proposed Amendment on Occupational Exposure to Lead**

Dear Ms. Money,

The International Safety Equipment Association (ISEA) is pleased to submit these comments in response to the California Occupational Safety and Health Standards Board's proposed amendments to the lead standards.

## About the International Safety Equipment Association

ISEA is the U.S. trade association for companies that design, test, manufacture and supply personal protective equipment (PPE), including respiratory protection, and a wide array of other products that help keep the nation's workforce safe.

ISEA's respiratory protection members are world leaders in designing, testing, manufacturing, and supplying a wide range of respiratory protective devices (respirators), from filtering facepiece respirators to self-contained breathing apparatus.

Nationwide, the safety equipment industry supports 345,000 total jobs and generates economic activity of more than $71.6 billion. In addition, more than 111 million workers across the U.S. are protected by the safety equipment our members produce and ISEA represents.

In California, the safety equipment industry supports 36,000 jobs and generates economic activity of nearly $8 billion.

In addition, 13 million California workers are protected by a range of personal protective and safety equipment. More than 5 million workers in California use respiratory protection, of which more than 1 million work in construction.

ISEA is submitting two statements on the proposed amendments. One focuses just on respiratory protective equipment. The other addresses the use and handling of contaminated clothing and minimizing contamination during hand/arm washing.

Please contact me at cmackey@safetyequipment.org if you or others at Cal/OSHA have any questions about these comments or if you would like additional information about them.

Sincerely,

Cam Mackey
President & CEO
International Safety Equipment Association

INTERNATIONAL SAFETY EQUIPMENT ASSOCIATION

# Proposed Amendments Respecting Lead – Respiratory Protection

Cal/OSHA's proposed amendments respecting lead are, in general, a positive step to ensure workers in California are increasingly protected from workplace exposures to lead. The Proposed Amendments note the importance of the use of the hierarchy of controls to help reduce worker inhalation exposure to airborne lead-containing particles, as well as ingestion exposure due to surface contamination. Controls such as local exhaust ventilation to reduce the emission of lead-containing particles at the source and the use of increased general ventilation and filtration to reduce the concentration of airborne lead, followed by the use of appropriate NIOSH-approved respiratory protection, would be even more important if the proposed lower PELs come into force. When used properly, these controls are known to help reduce exposures to airborne concentrations of particles. The use of NIOSH-approved respirators within complete respiratory protection programs – including fit testing and training, according to the federal OSHA Respiratory Protection Standard, 29 CFR 1910.134 – is a key component of many employers' effective employee health and safety programs.

However – ISEA would like to express concern over the proposal in the Proposed Amendments that the use of filtering facepiece respirators be prohibited in applications involving potential lead exposure. ISEA recommends abandoning this proposed amendment, since it is not supported by evidence or data and would limit access by the workers and employers impacted by this standard to a key instrument in exposure reduction – the filtering facepiece respirator.

In the Proposed Amendments to the California Code of Regulations, Subsection (f)(3)(A), it states "*In this subsection, a requirement would be added that would prohibit employers from selecting or using filtering facepiece respirators to protect their employees when respirator use is required*." The reasoning for this change is stated in the Proposed Amendments as, "*filtering facepiece respirators are unlikely to provide adequate protection to employees, due to the difficulty in achieving and maintaining a satisfactory seal on the employee's face.*" This statement is in direct conflict with OSHA's Final Rule on APFs for Filtering Facepieces, which was based on extensive research over many years. **The statement that filtering facepiece respirators are unlikely to provide adequate protection to employees is not supported**

**by scientific evidence and contradicts a long-standing, well-researched Federal OSHA rule on respirator assigned protection factors.**

As noted in 29 CFR 1910.34, Table 1 – Assigned Protection Factors (APFs)[1], half facepiece respirators have an assigned protection factor of 10. There is also a note (3) that states, *"This APF category includes filtering facepieces and half masks with elastomeric facepieces."*

A robust and scientific review of workplace protection data was conducted when the APF was set at 10 for filtering facepiece respirators in the Final Rule. The evidence and review process were described in detail in the Final Rule; Assigned Protection Factors, Federal Register # 71:50121-50192 August 24, 2006. https://www.osha.gov/laws-regs/federalregister/2006-08-24. The data and logic supporting an APF of 10 for filtering facepieces put forth in this document have not changed in the 17 years since this ruling.

The final rule includes this explanation of OSHA's deliberation process leading to the adoption of the APF of 10 for filtering facepiece respirators: *"The Agency developed the final APFs after thoroughly reviewing the available literature, including chamber-simulation studies and workplace protection factor studies, comments submitted to the record, and hearing testimony. The final APFs provide employers with critical information to use when selecting respirators for employees exposed to atmospheric contaminants found in general industry, construction, shipyards, longshoring, and marine terminal workplaces. Proper respirator selection using APFs is an important component of an effective respiratory protection program. Accordingly, OSHA concludes that the final APFs are necessary to protect employees who must use respirators to protect them from airborne contaminants."*

The scientific evidence considered by OSHA during the development of the APF of 10 for half facepiece respirators – including both elastomeric half facepiece respirators and also filtering facepiece respirators – includes vast amounts of workplace protection factor (WPF) data. A WPF measurement is the ratio of the concentration of a particular contaminant outside the respirator

[1] In fact, Cal/OSHA recognizes the same level of protection and includes the same APF table at Sec. 5144, California Code of Regulations, Title 8, Section 5144. Respiratory Protective Equipment. (accessed April 20, 2023)

to the concentration inside the respirator – in other words, the actual level of protection provided to a worker while wearing a respirator during their workday. WPF studies are a key piece of evidence illustrating the level of protection a category of respirator can be expected to provide when used within a complete respiratory protection program, including fit testing and training. The database OSHA compiled during the development of their Final APF Rule includes 1,339 WPF measurements – 760 collected from filtering facepiece respirators and 579 collected from elastomeric respirators.

Filtering facepiece respirators have been successfully donned and worn by millions of workers for over a half-century, in diverse workplace environments, to help reduce workers' exposures to airborne particulate hazards to below exposure limits in situations where exposures could not be sufficiently reduced via engineering or administrative controls. Restricting respirator availability to only elastomeric facepieces for those who have elevated airborne lead exposures is unwarranted and would cause undue burden on both employers and employees.

Workers' ability to achieve and maintain a satisfactory seal with any tight-fitting respirator – elastomeric or filtering facepiece - is supported by training and fit testing of the respirator, as part of a complete Respiratory Protection Program. Cal/OSHA, like Federal OSHA, does have those requirements in place - Title 8 CCR, Section 5144, requires employers to have Respiratory Protection Programs in place which include fit testing protocols (Appendix A) and User Seal Checks (Appendix B-1) and training in the proper use of respirators, including putting on and removing them, use limitations, and maintenance.

By implementing a blanket ban on filtering facepiece respirators for lead applications, Cal/OSHA would be restricting health and safety professionals from selecting a scientifically proven effective respirator option which may be deemed optimally protective of workers' health, per site-specific hazard evaluations, because of their disposable design.

**Therefore, ISEA requests Cal/OSHA remove the exclusion of the use of filtering facepieces.**

ISEA believes keeping respirator requirements science-based and consistent for all workers may result in greater compliance, proper use of respiratory protection, and help ensure effective respiratory protection for all workers.

INTERNATIONAL SAFETY EQUIPMENT ASSOCIATION

# Proposed Amendments Respecting Lead - Additional Topics

## Minimizing Take-Home Contamination

In addition, workers must be provided with disposable or reusable coverall to minimize "take home" contamination, which happens when lead dust on workers clothing travels with the worker back home.

OSHA's beryllium standard at 29 CFR 1910.1024 includes prescriptive language regarding safe removal of contaminated protective clothing and steps to minimize contamination of street clothing. These specifications are found at 1910.1024(h)(2)(i). The proposed CA lead amendments should include language for protective clothing similar to OSHA's beryllium standard. This would be more protective for workers and their families, as it would minimize lead dust exposure to Californians, including those who collect and launder contaminated garments.

## Disposable Paper Towels for Hand/Arm washing

ISEA would also like to point Cal/OSHA's attention to a specific aspect of hand-washing requirements.

Multiple studies show disposable paper towels are the most hygienic option in workplace handwashing requirements. They are preferred over airdyers[2], which have been shown to disperse dusts and aerosols into the ambient air[3]. Also, reusable towels shave been shown to

[2] https://europeantissue.com/about-tissue/away-from-home/properties-of-tissue/user-preference-observational-study-issainterclean-amsterdam-2016/ "An extensive observational study at ISSA/Interclean 2016 confirms that the vast majority of Users prefer Paper Towels to Jet Air Dryers"

[3] https://www.sciencedirect.com/science/article/abs/pii/S0195670114002461
Air bacterial counts in close proximity to hand drying were 4.5-fold higher for the jet air dryer (70.7 cfu) compared with the warm air dryer (15.7 cfu) ($P = 0.001$), and **27-fold higher** compared with use of paper towels (2.6 cfu) ($P < 0.001$). (emphasis added)

retain toxic chemicals even after commercial laundering, passing potential exposures to the next, unsuspecting worker[4].

Studies published in various peer-reviewed journals (See below) demonstrate that disposable paper towels control the risk of putting pathogenic bioaerosols back into the ambient air. Clearly, using disposable paper towels also negates the risk of dermal exposure from previous users, which has been found in reusable towels.

[4] https://www.manufacturing.net/home/article/13149592/qa-heavy-metal-safety "towels routinely used by food manufacturers are often contaminated with heavy metal residues from other industries that survived the cleaning process."

**Reference Resources for Published Articles on the Hygienic Value of Disposable Paper Towel Use**

The Hygienic Efficacy of Different Hand-Drying Methods: A Review of the Evidence, *Mayo Clinic Proceedings*

A review of 12 studies on the hygienic efficacy of different methods of hand drying published between 1970 and March 2011. Effectiveness was based on the speed, the degree of dryness, the overall effective removal of bacteria, and the prevention of cross-contamination. The conclusions were that, overall, most studies suggest that paper towels can dry hands more efficiently remove bacteria effectively and cause less contamination within the washroom than jet air dryers.

» Access the study at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3538484/

E.L. Best, K. Redway, "Comparison of Different Hand-Drying Methods: The Potential for Airborne Microbe Dispersal and Contamination," *Journal of Hospital Infection*, 89 (2015)

This study assessed the potential for airborne microbe dispersal of four hand-drying methods (paper towels, cloth roller towels, warm air, and jet air dryer) by using three different experimental models. The study demonstrated the higher levels of airborne microbe dissemination by jet air dryers, particularly if hand washing is suboptimal.

» Access the study at https://www.journalofhospitalinfection.com/article/S0195-6701(14)00372-7/fulltext

P.T. Kimmitt & K.F. Redway, "Evaluation of the Potential for Virus Dispersal During Hand Drying: A Comparison of Three Methods," *Journal of Applied Microbiology*, 120 (2016)

A comparison of three hand-drying methods –paper towels, a warm air dryer and a jet air dryer – to disperse viruses and contaminate the immediate environment during use, by using a MS2 bacteriophage model. The results of the study show that the use of jet air dryers leads to significantly greater and further dispersal of viral particles from artificially contaminated hands than warm air dryers and paper towels.

» Access the study at https://sfamjournals.onlinelibrary.wiley.com/doi/full/10.1111/jam.13014

E.L. Best, P. Parnell and M.H. Wilcox, "Microbiological Comparison of Hand-Drying Methods: The Potential for Contamination of the Environment, User and Bystander," *Journal of Hospital Infection*, 88.4 (2014)

This study tested how microbes are spread when using three methods of hand drying – jet air dryers, warm air dryers and paper towels – in a public restroom. Researchers first measured amounts of bacteria in the immediate vicinity, as well as one meter away from all three hand drying devices.

This part of the study found that bacteria counts were higher in the air immediately next to the jet air dryers than that of warm air dryers and paper towel dispensers. Bacteria counts were also higher in the air surrounding the jet air dryers, versus the warm air dryers and paper towel dispensers, when researchers tested air samples taken one meter from the devices.

» Access the study at https://www.sciencedirect.com/science/article/abs/pii/S0195670114002461

Observational Study at ISSA/Interclean Amsterdam 2016, Published by the European Tissue Symposium

This observational study, conducted during ISSA/Interclean Amsterdam in May 2016, found that 90% of people showed a preference for paper towels over jet air dryers when given a choice between the two in public washrooms. Researchers observed 3,879 visitors in a total of four restrooms – two men's and two women's – which were all equipped with both paper towels and jet air dryers, situated directly above one another.

» Access the study at https://europeantissue.com/about-tissue/away-from-home/properties-of

| | |
|---|---|
| **From:** | Helen Cleary |
| **To:** | DIR OSHSB |
| **Cc:** | Shupe, Christina@DIR; Killip, Jeff@DIR; Berg, Eric@DIR; Eckhardt, Susan@DIR; Neidhardt, Amalia@DIR |
| **Subject:** | PRR Comments: 15-Day Notice of Modifications to Lead |
| **Date:** | Monday, July 24, 2023 4:05:13 PM |
| **Attachments:** | PRR Comments_OSHSB_15 Day Notice of Modifications_Lead_July 24 2023.pdf |

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Hello Board Members and Staff,

Please accept the attached written comments from the Phylmar Regulatory Roundtable, PRR, OSH Forum, in response to the Board's 15-Day Notice of Modifications to the proposed amendments to the lead General Industry and Construction standards.

Thank you for the opportunity to submit and for your consideration of our concerns, support, and recommendations.

Kind regards,

Helen

Helen Cleary
Director
Phylmar Regulatory Roundtable, PRR-OSH Forum
m: 916-275-8207
e: hcleary@phylmar.com
w: www.phylmar.com/regulatory-roundtable

July 24, 2023

State of California
Department of Industrial Relations
Occupational Safety and Health Standards Board
2520 Ventura Oaks Way, Suite 350
Sacramento, CA 95833
OSHSB@dir.ca.gov

**RE: Proposed 15-Day Modifications to Title 8 Lead Standards (§1532.1; §5155; §5198)**

Board Chair Thomas and Board Members:

Please accept these comments and recommendations from the **Phylmar Regulatory Roundtable (PRR) Occupational Safety and Health, OSH Forum** in response to the California Occupational Safety and Health Standards Board's (Board or OSHSB) 15-Day Notice of Proposed Modifications to California Code of Regulations to amend the Lead Standards in Title 8: Sections §1532.1 of the Construction Safety Orders (CSO); and §5155 and §5198, of the General Industry Safety Orders (GISO), published on July 7, 2023.

PRR members appreciate the Board and the California Division of Occupational Safety and Health (Division) for issuing modifications to the proposed amendments to the lead standards for General Industry (GISO) and Construction (CSO) originally noticed in March 2023. While we support many of the proposed changes, we do not believe the changes effectively address or mitigate the overall, significant concerns PRR members, and industry, have with this rulemaking. Please know these comments only address the changes in the 15-Day Notice, as requested, and PRR's remaining concerns are documented in comments submitted on April 19, 2023.

**Concerns with Proposed Modifications**

GISO §5198 (l)(1)(B)(C); CSO §1532.1 (l)(1)(B)(C) Communication of hazards
PRR has significant concern regarding the new training elements added in subsection (l) to both proposed amendments to lead in the CSO and GISO. As drafted, these are major changes that have the potential to greatly expand the scope of training to nearly every employee in the State that may have an unknown, infrequent, and low exposure to lead.

The vague trigger of "occupationally exposed to lead" does not consider a threshold and implies that *any* exposure, without consideration to duration or dose, reaches a level of risk necessary to require California employers to create, monitor, and manage ongoing training. This is an unreasonable change which will create significant administrative and financial burdens that were not considered in the Standardized Regulatory Impact Assessment (SRIA).

The addition of a new training requirement has indirectly created an additional exposure level that employers will be required to manage. The originally proposed §5198 (l)(1)(A) and §1532.1 (l)(1)(B) appropriately require a training program for employees exposed to lead at or above the action level, are exposed to lead irritants, or need interim protections. The 15-Day Notice proposes training those individuals *in addition* to workers who are "occupationally exposed." This implies that anyone who can *possibly* be exposed to lead *below* the action level must also be trained. For example, it could be argued that any employee who works in an old building or along the roadside may experience an "occupational" exposure and needs to receive initial and annual training despite their required job duties having nothing to do with tasks known to have lead exposures. This does not align with the intent of the proposal.

Exposures below the action level of 2µg/$m^3$ should not be considered "occupational exposure" that requires initial and annual training. This is an unreasonable expectation. Such encompassing requirements should be tied to an actual exposure limit.

In addition, it does not make sense why employees with "occupational" exposure to lead below the Division's determined threshold need to be trained on the employer's housekeeping and hygiene procedures specific to lead; they are not the workers the housekeeping and hygiene requirements are intended to protect.

As drafted, and because it is included in both the CSO and GISO rules, this will require significant cost and training hours for thousands of employees across the State. Due to the short 15-Day timeframe, PRR members are unable to estimate the number of workers it will impact but many shared it will be a significant number. To be clear, this number and cost would be in addition to employees trained on other elements in the rule.

It is also important to point out that awareness training is not necessary. Both the CSO and GISO standards require lead to be addressed in hazard communication programs.

If the intent of this addition, as Division Deputy Chief, Eric Berg, shared at the July 20, 2023, OSHSB meeting, is to train employees at risk of occupational exposure of lead from oral routes of exposure, this section needs to clearly reflect this and include an exposure threshold so that

training can be targeted to the proper employees. However, because the rule already sufficiently addresses training requirements in other subsections, we do not believe this is necessary. PRR recommends the newly proposed subsection (l)(B) and (C) in both the GISO and CSO are removed to ensure that all training requirements are tied to an actual exposure limit.

Finally, PRR member concerns with this section highlight the larger issue with the scope of the regulation. Specifically, the use of "occupational exposure to lead" to determine which workers the rule applies to and subsequent employer requirements. This, combined with the lowered action level expands the scope beyond workplaces known to create exposures to lead making the proposed modifications unreasonable. To clarify and to ensure these rules are necessary and target the employees at risk, a definition of occupational exposure needs to be included in both rules.

GISO §5198. (b) Presumed significant lead work (PSLW)

PRR members do not believe that changing "hazardous" to "significant" is appropriate. This change highlights the low thresholds that qualify work as PSLW are indeed too low. Moreover, it seems to acknowledge interim protections and complex exposure assessments are inappropriate for activities that can be reasonably anticipated to be below the action level. This change is another example that subsequent requirements for low thresholds that do not consider duration and frequency are unreasonable.

The rule should focus on reducing the *objective hazards* resulting from lead in the workplace; it should not be to address *subjective "significant"* work.

**PRR Support for Proposed Modifications**

GISO §5198. (i)(1)(A)

PRR members support the exception regarding the use of potable drinking water. This will help employers remain in compliance with the lead standard while providing clean drinking water.

GISO §5198. (i)(2)(3)(4)

PRR appreciates the additional time of one year from the effective date to allow employers time to comply with required change rooms, showers, and lunchrooms. This additional time will help alleviate some of the concerns expressed regarding building modifications.

It should be noted that we are disappointed and confused that additional time to comply was not included in the CSO standard for building modifications and in the GISO and CSO for the exposure assessments that will be required because of the expanded scope of the rule. This is

particularly disappointing because many of the stakeholders who expressed concern about this issue at the public hearing were from the construction industry. In addition, several Board members acknowledged industry's request for more time to comply with the entire rule and voiced support for extending the effective date. PRR, again, recommends the Board consider expanding the one year effective date in both rules.

GISO §5198. (j) & CSO §1532.1 (j) – Medical Surveillance

PRR appreciates and supports the new exception in CSO §1532.1 (j)(1)(A) for initial blood lead testing and the modification to medical surveillance in §5198. (j)(A) and §1532.1 (j)(1)(B). Specifically, not requiring employees to be tested if they are not exposed above the action level for 30 or more days in any 12 consecutive months, and for those not exposed on any day above 10 µg/$m^3$ as an 8-hour TWA. This exception helps to alleviate PRR's primary and significant concern regarding the requirement to perform blood lead testing and medical surveillance for short duration and low exposures. It should also help reduce the scope of workers inappropriately impacted by the lowered action level (AL) in the proposal. The change from 10 to 30 days in any 12 consecutive months also helps address the original proposal's lack of consideration of duration and frequency when interim protections are triggered.

In addition, not requiring employees to submit to an initial blood lead test if they have been tested or have had a medical exam in the preceding two months (§1532.1 (j)(1)(A)(1), (3)(A)2., and §5198. (j)(2)(A)(1)) is a practical approach that will support the employer, the employee, and contractors. Individuals should not be subject to additional tests as invasive as blood tests when it is not medically necessary.

We believe that these changes exhibit the Division and Board's attempt to draft a rule that protects workers at the highest occupational risk without creating requirements that are unreasonable. As previously expressed in PRR's written and oral comments, the substantial reduction of 93% in the action level and the 80% reduction in the permissible exposure limit without adjusting the subsequent requirements these exposure levels would trigger, greatly expanded the scope of the rule and unnecessarily encompass infrequent, unknown, and random exposures. These proposed exceptions are *steps* in addressing this much larger issue.

This modification also aligns with the Division's previous acknowledgement during the Advisory Committee meeting in November 2015 that something needed to be done to address industry's expressed concern about the expanded scope and impact of initial blood lead testing and medical surveillance on an inappropriately large number of workers.

CSO §1532.1 (i) (3) Showers.

PRR members very much appreciate the proposed exception that allows employers to consider feasibility when providing shower facilities. This change considers the operational experience of experts familiar with managing mobile workforces in the field.

PRR continues to disagree with the Division's comparison of providing showers in the lead standard to the requirements in the asbestos regulation including comments that providing them would not be expensive. As stated in our previous comments, asbestos workers are highly trained, there are specific exemptions and guidelines, and removing asbestos in a building is an extended project. Furthermore, §1529(j)(1) only requires the use of showers during Class I asbestos work where more than 25 square feet or 10 linear feet of asbestos-containing material is removed. There is no requirement for showers during asbestos operations and maintenance tasks. The need to consider feasibility when providing showers during mobile and critical infrastructure operations for workers who *may* be exposed to lead cannot be accurately compared to situations that expose workers to asbestos. In addition, the requirement for showers in the asbestos standard also considers feasibility (§1529(j)(1)(A)2).

This change is appropriate and will alleviate concerns expressed in PRR's written comments submitted on April 19, 2023, and from the many stakeholders at the public hearing about the unreasonableness and near impossibility to provide mobile shower facilities.

GISO §5198 (k)(C); CSO §1532.1 (k)(C) Medical Removal Protection

PRR appreciates the proposed amendment that does not require employees to be removed if the last blood lead test indicates a blood lead level below 15 µg/dl. This modification aligns with workplace exposure models.

**Summary**

As expressed, PRR appreciates many of the proposed 15-Day Modifications with one major exception. However, despite the Division and Board's attempt to create exemptions that reduce the scope of the requirements, this rule remains too complex and expansive due to the extremely low action level (AL) and permissible exposure limit (PEL). The Division and Board have not adequately addressed short duration and frequency of low exposures. While we continue to support and understand the scientific reasoning behind the lowered AL and PEL, applying lose definitions of "occupational exposure to lead" without linking that definition to scientifically determined and measurable exposure thresholds have resulted in an unreasonable regulation.

PRR continues to advocate that the Board should not adopt this regulation as proposed. Such low action levels require additional revisions so that the scope and application is appropriate. We are hopeful that the Division and Board will listen to PRR's valid concerns and respond with proposed amendments before a final rule is adopted.

Thank you for your consideration.

Sincerely,

Helen Cleary
Director
PRR OSH Forum

CC:

| | |
|---|---|
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*PRR is a member-driven group of 37 companies and utilities, 19 of which rank amongst the Fortune 500. Combined, PRR members employ more than 1.7 million American workers and have annual revenues in excess of $1 trillion. Individual PRR members are Environmental Health and Safety (EHS) professionals committed to continuously improving workplace safety and health. PRR provides informal benchmarking and networking opportunities to share best practices for protecting employees. In addition, members work together during the rulemaking process to develop recommendations to federal and state occupational safety and health agencies for effective workplace regulatory requirements. These comments and recommendations are based on the experience and expertise of PRR members, many of which are Certified Industrial Hygienists (CIH). However, the opinions expressed in them are those of PRR and may differ from beliefs and comments of individual PRR members.*

**From:** Leder, Leslie on behalf of Moutrie, Robert
**To:** DIR OSHSB
**Cc:** Killip, Jeff@DIR; Berg, Eric@DIR; Shupe, Christina@DIR
**Subject:** Comment Letter - 15 Day Change to Proposed Occupational Lead Standards
**Date:** Monday, July 24, 2023 4:42:30 PM
**Attachments:** 7.24.23 CalChamber Comment Letter re Modifications to Proposed Lead Exposure Standards Final.pdf

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Good afternoon,

Attached is our comment letter regarding the 15 day change to the proposed Occupational Lead Standards. If you have any questions, please reach out to me.

Thank you,

**Rob Moutrie**
Policy Advocate

CalChamber
HR Expert & Business Advocate™

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July 24, 2023

Chair David Thomas and Board Members
Occupational Safety & Health Standards Board
Department of Industrial Relations, State of California
2520 Venture Oaks Way
Suite 350
Sacramento, CA 95833

***Submitted electronically***: oshsb@dir.ca.gov

**RE: 15-DAY CHANGE TO PROPOSED OCCUPATIONAL LEAD STANDARDS**

Dear Chair Thomas and Members of the Board:

The California Chamber of Commerce submits this letter to provide comment upon the 15-day change notice[1] (the "15-day change") to the proposed revisions to the Occupational Lead Standards (8 CCR §§ 1532.1, 5198; collectively, "Lead Standards," or "Construction Standard" and "General Industry Standard," respectively).

**Appreciate Changes Made Regarding Feasibility, and Others**

First, we appreciate the changes made in the 15-day notice that were requested, including but not limited to:

- Re-inclusion of feasibility as an exception to the requirement to provide shower facilities.
- Harmonizing of the general hygiene requirements to ensure potable drinking water is accessible.
- The inclusion of an exception for workers with infrequent and brief exposure.

**Un-addressed Feasibility Issues Remain After the 15-Day Change**
**Remaining Concerns After the 15-day Change Notice**

As Board Member Harrison acknowledged after the lengthy testimony at the April 20, 2023 Cal/OSHA Standards Board meeting – industry concerns here are "not a matter of *what*, [they are] a matter of *how*." The business community understands the importance of regulating lead exposure, and we understand the need to update the lead regulation. However, despite lengthy testimony as to the infeasibility of the some of the proposed regulation's requirements at the April 20th meeting, the 15-day change does not seem to address those concerns. Below are our outstanding concerns:

1) **Un-addressed Feasibility Issues Remain After the 15-Day Change Time for the Facilities Improvements Required by the Proposed Lead Standards.**

As expressed in our letter of April 20, 2023, the proposed standard requires considerable new engineering controls for general industry. These improvements will require time for contracting, permitting, installation – all of which *cannot* be completed within one year, based on our present estimates. We also believe this timeline remains infeasible for construction. As a result, we would urge it be lengthened – to a 2-year timeline, if not the 3 years urged in our April 20, 2023 letter. Notably, we believe inclusion of some form of verification of progress would be appropriate to allow for this 2-year delay in implementation – similar to the suggestion made by the Battery Council's April 20th comment letter.

2) **Compliance Should Be Triggered by At-Work Exposure.**

As expressed in our letter of April 20th, 2023, we remain concerned that the proposed Lead Standards do not include specific language to make clear that at-home exposures to lead *do not* trigger its provisions.

[1] The 15-day notice is available here: https://www.dir.ca.gov/oshsb/documents/Lead-15-Day.pdf.

Though the present Lead Standards have thresholds for exposure that are relatively high and unlikely to be triggered outside the workplace, the new proposals would lower those thresholds drastically. Because the threshold Action Level and PEL will be much lower, lead exposure outside the workplace – such as through remodeling or disturbing lead-infused soil – is much more likely to bring a worker above the medical removal threshold and trigger employer obligations under the Lead Standards. We are disappointed that this issue was not addressed in the 15-day change and would urge reconsideration of this issue.

**3) New Short-Term, Infrequent Exposure Exemption Should be Refined.**

We appreciate the addition of Exceptions 1 & 2 of subsection (j) related to medical surveillance, which specifically exempts employees who are exposed for less than 30 days in a 12-month period with exposures at or below 10 micrograms/cubic meter in an 8-hour TWA, and those who had a negative determination recently. Exception 1 importantly recognizes that daily, ongoing exposure is not the same as infrequent, short-term exposure in terms of its effect on blood lead levels and should be treated differently.

However, we believe the limitation of Exception 1 to the extent that it applies only to workers who do not have any single day's exposures rise above 10 micrograms (down from 100 micrograms) as an 8-hour weighted average undercuts the utility of this exception and appears unnecessarily protective.
Thank you for the opportunity to provide input on this regulation.

Sincerely,

Robert Moutrie
Policy Advocate
California Chamber of Commerce

Copy: Jeff Killip JKillip@dir.ca.gov
Eric Berg eberg@dir.ca.gov
Christina Shupe cshupe@dir.ca.gov

**From:** Kosnett, Michael
**To:** DIR OSHSB
**Subject:** Comment on Notice of Proposed Modification of Title 1532 and 518
**Date:** Monday, July 24, 2023 4:57:51 PM

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Ladies and Gentlemen:

I respectfully offer a comment on wording at various locations in the Appendices to proposed lead standard modifications Title 1532, 5198 and 5155 that discuss the relationship between chronic lead exposure and the risk of death from cardiovascular disease. For example, on page 161 of 170 in the draft changes circulated on July 7, 2023 , the narrative states: "Since hypertension is a significant risk factor for heart disease, stroke, and renal insufficiency, lead exposure may exert an important influence on cardiovascular, cerebrovascular, and renovascular mortality. Prospective cohort studies have demonstrated an approximate 50% increase in cardiovascular mortality associated with chronic BLLs of 10 µg/dl or greater."

The mode of action of lead in increasing the risk of death from cardiovascular is not due entirely to hypertension, as the risk exists in models that include hypertension as a covariate (e.g. see Menke A, Munter P, Batuman V, Silbergeld EK, Guallar E. Blood lead below 0.48 µmol/L (10 µg/ dL) and mortality among US adults. Circulation, 2006. DOI: 10.1161/CIRCULATIONAHA.106.628321. This should be emphasized.
Workers without hypertension remain at risk of lead related cardiovascular morbidity and mortality.

Michael J. Kosnett, MD, MPH FACMT
Colorado School of Public Health

OSHSB
Public Meeting
Received
7/20/23

July 18, 2023

The Honorable David Thomas, Chair
Cal/OSHA Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

Re: Response to "Cal/OSHA Standards Board 15-Day Comment Period", issued July 7, 2023, Proposed General Industry and Construction Lead Standards.

The undersigned organizations have reviewed the Cal/OSHA Standards Board proposed changes issued in the July 7, 2023 "15-Day Comment Period" to the "California Code of Regulations, Title 8, Section 1532.1 Lead", and we respectfully submit the following comments and recommendations for the lead in construction standard.

**Procedural Issues**

As a coalition of construction industry employer groups, and as concerned stakeholders, we take issue with a proposed regulatory change 15-Day Notice issued late in the afternoon on a Friday. It takes a considerable amount of time to organize a meeting with multiple employer groups and respond to the 15-Day Notice changes, and it takes away 3 days of valuable collaboration time to provide an informed response. For future notices, a Monday to Thursday notice is appropriate.

This coalition appreciates that the infeasibility consideration of providing showers was added back into the regulation and that some of the requirements for initial blood lead level testing were removed. To be clear, this was a deviation from the Federal language and should not have been changed in the first place.

**Ongoing issues with the proposed Lead in Construction 15-Day Notice**

We continue to have issues with the following revisions that remain in the proposed regulation:

- An unprecedented reduction in the PEL and AL. Reductions of 80% and 93% respectively, have no justification from the information provided by Cal/OSHA. Action Levels and Permissible Exposure Limits must be set at reasonable and achievable levels. Cal/OSHA has not demonstrated a compelling need for reducing the Action Level and Permissible Exposure Limits to these unrealistic levels.
- Adding unnecessary and confusing definitions for altering of lead and changing the definition for "competent person" to "supervisor". This change in definition imposes a significant training and cost burden on employers. There is no rationale that explains the need for adding in a 40-Hour training requirement in the regulation for supervisors. **These additional training costs are outlined below.**
- Expanding the "presumed" exposure of trigger tasks regardless of frequency and duration of the task to require "interim protection" is not a feasible approach to protecting employees from lead exposure. Additionally, there is no rationale for moving more trigger tasks into the "Level 3 Trigger Task" designation.
- The requirement to have all contractors with trigger task exposures, beyond Level 1, have individual exposure assessments mandated is unnecessary and burdensome. We estimate that approximately 86,000 contractors in construction would each have to hire a Certified Industrial Hygienist (CIH) to conduct air

monitoring. Combine this with air monitoring requirements for tens of thousands of general industry employers, and there are simply not enough CIHs to meet this demand. If this exposure assessment requirement is not changed, it will require a delay of at least 3 years for industry to catch up prior to Cal/OSHA implementing enforcement. **The cost estimate for air monitoring exposure assessments is outlined below.**

In the absence of recent and meaningful advisory committee meetings and a side-by-side comparison of the original lead in construction proposal, stakeholders were not allowed the time or opportunity to present the real costs to employers. The SRIA that was offered with the proposed changes to the lead regulation presented is outdated and provides inaccurate cost estimates. Therefore, we have compiled cost projections over 10 years that reflect "real world" costs as follows:

CalOSHA asserts that compliance costs to each employer in year 1 will be $10,647; and $8,514 per year in subsequent years. Small Businesses are defined as less than 100 employees, CalOSHA estimates the compliance costs to be $5,989 in year 1; and $4,837 per year in subsequent years.

**The actual projected total costs for year 1 are $14,695,695,320.**
**The 10-year projected costs are $145,224,878,000. The SRIA 10-year projected costs are $862,818,517.**
**Based on 86,417 Class C licensees, first year costs will be $170,055 per employer.**
Costs have been calculated based on 86,417 Class C licensees; 50,000 Supervisors, 110,000 employees (for total employee group of 160,000); and the average WCIRB wage rate of $52 p/hour for the impacted Class C licensees.

| | |
|---|---|
| Initial Exposure Assessment | $ 2,160,425,000 |
| Blood Lead Level Testing | $ 116,340,000 |
| Training – Supervisors & Employees | $ 259,360,000 |
| Compliance Program | $ 179,747,360 |
| Respiratory Protection | $ 258,814,600 |
| Personnel Protective Clothing | $ 697,254,000 |
| Changing Stations | $ 86,417,000 |
| Eating Facilities | $ 86,417,000 |
| Regulated Areas | $ 86,417,000 |
| Notification of Blood Level Testing | $ 21,840,000 |
| Medical Exams | $ 10,500,000 |
| Recordkeeping | $ 179,747,360 |
| Showering: Facilities, Supplies, PH | $ 10,552,416,000 |

**Showering and changing stations costs could potentially increase by 50% to 100% to accommodate separate showering and changing facilities for women in construction.*
**Infeasibility for showering includes collection, containment, transportation, locked storage, and abatement of lead-contaminated water, as well as lack of proximity to a water lead abatement provider.*
**Infeasibility for laundering lead-contaminated clothing due to lack of vendors that will launder lead-contaminated clothing.*
**Infeasibility of creating a separate eating facility on a residential jobsite.*

Governor Newsom has said his Administration is taking an "all of government" approach to the decarbonization of existing buildings in order for the state to achieve carbon neutrality by 2045. Under Cal/OSHA staff's proposed AL and PEL, a significant and new cost multiple will be added to the price tag

of building decarbonization for contractors and their customers. Ironically, these new costs will detract from the actual goal of building decarbonization. Market access to the capital needed for these projects by public and private building owners is already strained to the limit. Has Cal/OSHA staff considered the fact that any new and unnecessary costs created by this rule directly threatens our state's ability to fund and therefore achieve the Administration's goal of carbon-neutrality by 2045?

As a collective group of concerned employer organizations, we feel that the expanded scope of the proposed changes to the lead in construction regulation has placed an unreasonable burden on construction employers. Therefore, we request the following:

a. Cal/OSHA to provide stakeholders with a rationale for the proposed changes in the lead regulations so that a reasonable discussion can be held demonstrating the need for change.
b. A revision of the SRIA. The current SRIA was based on outdated information and was woefully inadequate in its analysis. Cal/OSHA Standards Board Members, stakeholders and the regulated public deserve to know the real costs of the proposed lead regulation revision.
c. A new 15-Day Notice with a revised proposal, specifically to the lead in construction regulation. The 15-Day Notice to be issued between a Monday and Thursday. The proposal to include:
    i. Adjusting the Action Level and Permissible Exposure Limit to a reasonable level, clearly supported by evidence.
    ii. Removing the requirement for supervisors to have "Competent Person" 40-Hour Lead training. Replace the word "supervisor" with "Competent Person" in proposed section 1532.1(b)-definitions.
    iii. Aligning trigger tasks in construction with Federal Lead in Construction Regulations.
    iv. Allowing objective data to be used by employers as an option to requiring each employer to conduct an initial exposure assessment.
    v. A three-year delay of enforcement after the revised lead regulations become effective. The proposed changes have imposed numerous burdens on employers related to training requirements, exposure assessments, lowered AL and PEL, changing trigger tasks, medical surveillance and blood lead level testing, required changes in operations and providing additional equipment to comply with revised regulations, revised written programs, lowered medical removal threshold for blood lead levels in employees, and many more requirements. The cumulative effect of the many regulatory changes will take this amount of time for employers to comply fully.

In conclusion, we offer these comments as an addendum to the April 17, 2023, letter of record to the Cal/OSHA Standards Board. The focus of this letter is to stay within the request of the Standards Board to only comment on the 15-Day Notice issued on July 7, 2023. The scope of the total changes to the lead regulation is truly far reaching and imposes a significant burden on employers. It is the hope of this construction coalition that the information provided in this letter will shed additional light on the impact the proposed changes will have on all of industry, and specifically the construction industry. We remain open to discussion with Cal/OSHA and the Standards Board on the above concerns and are requesting an opportunity to have those discussions in a meaningful and productive way.

Respectfully,

American Subcontractors Association of California

Associated Roofing Contractors of the Bay Area Counties

Building Owners and Managers Association of California

California Association of Sheet Metal and Air Conditioning Contractors, National Association

California Building Industry Association

California Business Properties Association

California Framing Contractors Association

Construction Employers' Association

Flasher Barricade Association

Housing Contractors of California

National Electrical Contractors Association

National Roofing Contractors Association

Northern California Allied Trades

Painting and Decorating Contractors of California

Roofing Contractors Association of California

Southern California Contractors Association

Southern California Glass Management Association

Union Roofing Contractors Association

United Contractors

Wall and Ceiling Alliance

Western Electrical Contractors Association

Western Painting & Coatings Contractors Association

Western Wall & Ceiling Contractors Association

**Also:**
**Residential Contractors Association**
**Western Steel Council**

# SECOND 15-DAY NOTICE (OCTOBER 6, 2023)

# LEAD

**From:** Yi Tian
**To:** DIR OSHSB
**Cc:** Money, Sarah@DIR; Shupe, Christina@DIR
**Subject:** FW: SECOND 15-DAY NOTICE: Lead
**Date:** Friday, October 6, 2023 6:01:35 PM

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Comment/Question on 1532.1(d)(6) Frequency:

"(B) If the initial determination or subsequent determination reveals employee exposure to be at or above the action level but below 30 µg/m3 as an 8-hour TWA, the employer shall perform monitoring at least every 12 months. The employer shall continue monitoring at the required frequency until at least two consecutive measurements, taken at least 7 days apart, are below the action level, at which time the employer may discontinue monitoring except as otherwise provided in subsection (d)(7)."

What is the rationale behind the 30 ug/m3? The action level is now 2 ug/m3 and PEL is now 10 ug/m3. Shouldn't we use the PEL?
Also, if the employer is only required to perform monitoring every 12 months, will the employer take two consecutive measurements, 7 days apart, during this annual monitoring?

Kind regards

**Yi Tian, CIH, CSP**

Senior Managing Consultant

D +1 949.798.3624

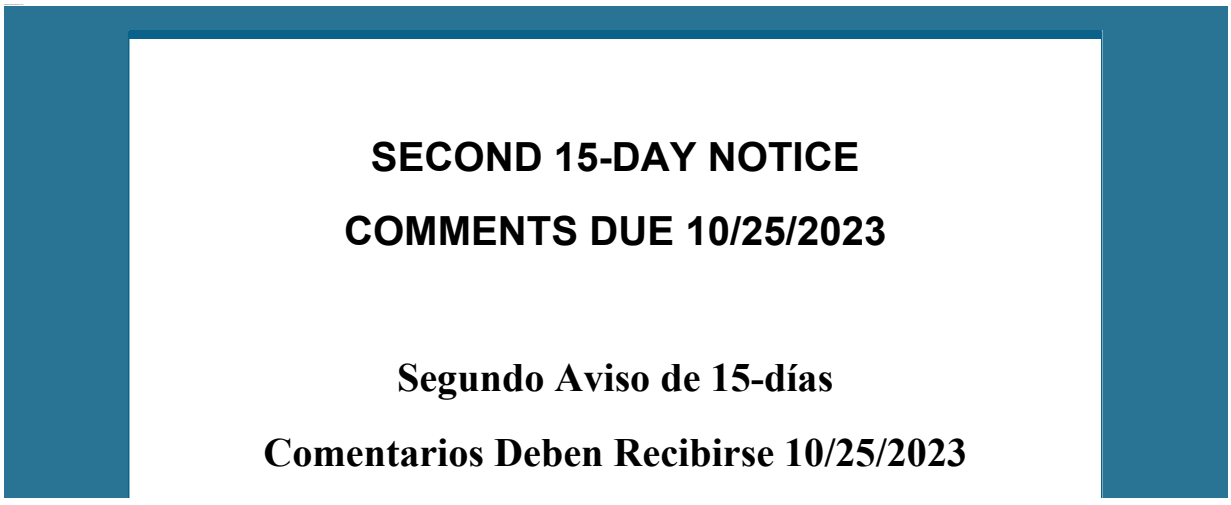
M +1 949.278.8426

ytian@ramboll.com

The Partner for Sustainable Change

Classification: Confidential

**From:** Sarah Money <oshsb@dir-ca.ccsend.com> **On Behalf Of** Sarah Money
**Sent:** Friday, October 6, 2023 3:57 PM
**To:** Yi Tian <ytian@ramboll.com>
**Subject:** SECOND 15-DAY NOTICE: Lead



# Occupational Safety and Health Standards Board

**SECOND NOTICE OF PROPOSED MODIFICATIONS TO**

**CALIFORNIA CODE OF REGULATIONS**

Title 8: Section 1532.1 of the Construction Safety Orders;

and Sections 5155 and 5198 of the General Industry Safety Orders

**Lead**

Written comments on these modifications or documents relied upon

must be received by **5:00 p.m. on October 25, 2023** by mail or email:

MAIL

Occupational Safety and Health Standards Board

2520 Venture Oaks Way, Suite 350

Sacramento, CA 95833

EMAIL

oshsb@dir.ca.gov

Comments received after 5:00 p.m. on October 25, 2023 will not be included in the record and will not be considered by the Board.

Please confine your comments to the modification of the text and the additional documents.

This proposal will be scheduled for adoption at a future Board Business Meeting.

Access the 15-Day Notice for

Lead.

For additional information on Board activities, please visit the OSHSB website.

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# Junta de Normas de Seguridad y Salud Ocupacional

**SEGUNDO AVISO DE MODIFICACIÓN DE LA PROPUESTA**

**DEL CÓDIGO DE REGULACIONES DE CALIFORNIA**

Título 8: Sección 1532.1 de las Órdenes de Seguridad de la Construcción;

y Secciónes 5155 y 5198 de las Órdenes de Seguridad de la Industria en General

**Plomo**

Comentarios escritos sobre estas modificaciones o los documentos de respaldo deben recibirse antes de **las 5:00 p.m. del 25 de octubre de 2023** por correo o correo electrónico.

CORREO

Occupational Safety and Health Standards Board

2520 Venture Oaks Way, Suite 350

Sacramento, CA 95833

CORREO ELECTRÓNICO

oshsb@dir.ca.gov

Los comentarios recibidos después de las 5:00 p.m. del 25 de octubre 2023 no se incluirán en el registro y no serán considerados por la Junta.

Por favor, limite sus comentarios al texto modificado con respecto a su versión original y los documentos añadidos.

Esta propuesta se programará para su adopción en una futura Reunión de Negocios de la Junta.

Acceda al Aviso de 15 días para

Plomo.

Para obtener información adicional sobre las actividades de la Junta, visite el sitio web de

OSHSB.

Únase a nuestra lista de correo

Occupational Safety and Health Standards Board | (916) 274-5721
2520 Venture Oaks Way, Suite #350, Sacramento, CA 95833 | www.dir.ca.gov/oshsb

OSHSB | 2520 Venture Oaks Way, Suite 350, Sacramento, CA 95833

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**From:** Amy Boas
**To:** DIR OSHSB
**Subject:** Written comments for Lead - 2nd 15-day comment period
**Date:** Monday, October 16, 2023 10:35:50 AM
**Attachments:** NELCO Worldwide Cal-OSHA 2nd Lead 15-Day Comment Period.pdf

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To whom it may concern:

Please find attached our written comments for the 2nd 15-day comment period for Lead. These comments are for both Title 8 Section 1532.1 of the Construction Safety Orders and Title 8 Sections 5155 and 5198 for the General Industry Safety Orders.

Please contact me at 781-759-6946 or at the email above or Rick LeBlanc at 781-537-3001 or rleblanc@nelcoworldwide.com if you would like to discuss our comments.

Thank you,
Amy

**Amy Boas | Director of Environmental, Health & Safety**
**NELCO Worldwide**
2 Burlington Woods Dr, Suite 300, Burlington, MA 01803
Office 781.537.2019 | Mobile 781.759.6946
www.nelcoworldwide.com/ | ABoas@nelcoworldwide.com

October 16, 2023

Occupational Safety and Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833
Via email: oshsb@dir.ca.gov

**Re: Response to the 2nd 15-Day Comment Period for the Construction Safety Orders Section 1532.1 and General Industry Safety Orders Sections 5155 and 5198, Lead**

NELCO Worldwide appreciates the opportunity to provide our comments on the proposed revisions to the Cal/OSHA Lead regulations for construction and general industry safety orders.

We have been actively engaged in the revision process and appreciate that Deputy Chief of Health Eric Berg and Senior Safety Engineer Susan Eckhardt met with us to discuss the applicability of potential SECALs for our operations.

As we previously submitted in our comments for the first 15-day comment period, we are still requesting clarification on the Voluntary Removal or Restriction of An Employee found in Sections k(6)(G) for General Industry and k(2)(F) for Construction.

We are seeking this clarification because it is unfair for employers with pre-existing conservative policies to be held responsible for voluntary medical removal protection benefits or, even worse, to be motivated to eliminate their more protective policies.

Voluntary Removal or Restriction of An Employee (Sections k(6)(G) in General Industry and k(2)(F) in Construction):

> Can you please clarify what is meant by "health-related condition"?
>
> Does this mean that voluntary removal or restriction protection is only applicable if the employee has a health-related condition and that it is not applicable if the employee is removed as standard company policy?
>
> What does this mean for employers who already have a pre-existing blood lead removal policy that is more conservative than what is proposed? For example, NELCO currently has a blood lead removal policy of > 18 ug/dL whether or not there is a health-related condition. Would that trigger the proposed voluntary removal protection benefits if there is no health-related condition?

Please contact me at 781-537-3001 or rleblanc@nelcoworldwide.com or Amy Boas, Director of EHS, at 781-759-6946 or aboas@nelcoworldwide.com if you have any questions or wish to discuss our comments.

Sincerely,

Richard LeBlanc

Rick LeBlanc
President & CEO

**From:** Dan Gillespie
**To:** DIR OSHSB
**Subject:** Comment for public record
**Date:** Friday, October 20, 2023 3:18:29 PM
**Attachments:** image001.png
KBI Comments on draft lead standard revisions.pdf

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To Whom It May Concern
Please accept the attached letter of comment regarding the proposed changes to the lead standard for general industry, section 5198.

Thanks and regards,

FRIENDLY NOTICE: We recently changed our email addresses. To ensure undisrupted communication in the future, please be sure to update your contact records with my new email address in the signature below.

KBI
KINSBURSKY BROTHERS INTL.

www.kbirecycling.com

125 E Commercial St. A
Anaheim, CA 92801

Dan Gillespie, CSP
Executive Director, Health & Safety

Phone: 714-738-8516
Mobile: 951-454-2268
Email: dgillespie@kbirecycling.com

Affiliates
cirbasolutions.com

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Dan Gillespie, CSP, ASP
Kinsbursky Brothers Int'l (KBI)
125 E Commercial St., Ste. A
Anaheim, CA 92801

P (714) 738-8516 x 216
C (951) 454-2268
F (714) 276-0506
dgillespie@kbiRecycling.com

October 20, 2023

Autumn Gonzalez, Chief Counsel
Occupational Safety and Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, California 95833

Enclosure: Comment Letter

Dear Ms. Gonzalez

Please see attached below our company's submittal of comments to public record regarding the proposed changes to section 5198 of the Title 8 regulations, Lead.

Sincerely,

Dan Gillespie, CSP, ASP

*Executive Director of Health and Safety*
Kinsbursky Brothers Int'l (KBI)

My name is Dan Gillespie, CSP, and I am representing Kinsbursky Brothers International (KBI), a respected leader in the industrial recycling sector in California. Over the course of more than three decades, KBI has been dedicated to safeguarding the well-being of our workforce and their families.

On behalf of KBI, I would like to emphasize that our company has achieved remarkable success in reducing blood lead levels among our workforce, which now align with general population averages, measuring around 1.4 µg/dl on average. It's worth noting that this accomplishment has been realized without necessitating significant alterations to the action level or permissible exposure limit.

Although this goal was achieved with the current regulatory levels, KBI is not averse to an update of the lead standard. Many within the lead industry and the professional safety community agree that such an update is long overdue. However, our concern lies with the substantial reduction of the action level by 93 percent and the significant disparity between the new permissible exposure limit and action level, where the customary ratio is 2:1, not 5:1 as proposed in the draft revisions to the standard.

During the recent OSHSB meeting on October 19, 2023, Mr. Dan Napier, MS, CIH, articulated several valid points and advised the board to scrutinize the underlying science behind the proposed drastic changes. We wholeheartedly endorse both his recommendation for a careful review of the science and his perspective that adjustments should be incremental rather than sweeping, which aligns with the principles advocated by ISO Management Systems and is a fundamental concept in quality management.

Both during this public hearing and in the previous April public hearing, stakeholders have consistently called for a comprehensive rationale supporting the substantial reduction in permissible exposure limit and action level. To date, it seems that a satisfactory explanation has not been provided. Without a transparent exposition of the scientific basis for these proposed changes, the lead industry and the safety community are left to speculate about their purpose, rather than engaging collaboratively. Such ambiguity erodes industry cooperation, leading to resistance, and ultimately hampers the effective implementation of an enhanced standard, adversely impacting employees.

KBI echoes the sentiments of several speakers from the April and October Public Hearings by requesting a postponement of the new lead standard. We advocate for the inclusion of expert voices and the resolution of these pressing issues.

In closing, we align with Nola Kennedy's viewpoint concerning the need for certified professionals to conduct exposure monitoring. Drawing from decades of experience, KBI understands that precise, accurate, and repeatable personal air monitoring results demand substantial expertise in the industrial hygiene field, a concept we fully support incorporating into the lead standard.

Thank you.

**From:** Michael Geyer
**To:** DIR OSHSB
**Subject:** Lead – Proposed Amendments to 8 CCR §1532.1; §5155 and §5198
**Date:** Monday, October 23, 2023 9:32:25 AM
**Attachments:** KTI LTR re Cal-OSHA Lead Mod.pdf

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Greetings:

Attached is a PDF-letter providing comment to the proposed modifications:
*Lead – Proposed Amendments to 8 CCR §1532.1; §5155 and §5198*
Thank you for the opportunity to comment.

Regards,
Mike

**Michael Geyer PE, CIH, CSP**
**Project Director**
**KERNTEC Industries, Inc.**
**Bakersfield, California**
**www.kerntecindustries.com**
mgeyer@kerntecindustries.com
Cell: (661) 331-6006

**KERNTEC Industries, Inc.**
1712 19th Street, Suite 127
Bakersfield, California 93301
(661) 873-7277

**October 23, 2023**
**File No. 0105001.00**

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

**Subject:** Comments re Notice of Proposed Modifications to CCR TITLE 8: Section 1532.1, and Sections 5155 and 5198

Greetings:

My comment has application to Section 1532.1 and Section 5198.

My comment is specific to the definition: Physician or other licensed health care professional (PLHCP). This definition is overbroad and occasionally abused. In my professional opinion, a more narrow definition is warranted, e.g., one that specifically mentions health care professionals with occupational expertise.

The Board needs to be aware of the following broad definition:
*Licensed Healthcare Professional*
*G) Licensed health professional defined in this paragraph, the term "licensed health professional" means a physician, physician assistant, nurse practitioner, physical, speech, or occupational therapist, physical or occupational therapy assistant, registered professional nurse, licensed practical nurse, or licensed or certified social worker.* REF: 42 USC § 1396r(b)(5)

In my nearly 40-year career as an environmental engineer, I have experienced a number of wholly unqualified "health care professionals" dabbling in the environmental field, opining on occupational exposures to asbestos, lead, silica, molds, aerosols, etc., and getting it wrong. Moreover, I have testified against several for what was considered professional negligence.

The term PLHCP is far too broad and omits any reference to qualifying occupational expertise.

Currently DIR staff are drafting an emergency temporary standard (ETS) for respirable crystalline silica, and the PLHCP definition therein is being modified to include pulmonologists and occupational physicians. It would be prudent to consider something similar for these sections concerning occupational exposure to lead.

In my career I have yet to meet an occupational physician that I felt was unqualified. However, I have met quite a few "PLHCP's," or people who felt that they were a qualified PLHCP, that were unqualified. I recommend defining a PLHCP as: Physician or other licensed health care professional with qualifying expertise in occupational medicine/exposures.

Respectfully submitted,

Michael Geyer, PE, CIH, CSP
Project Director-President
**KERNTEC Industries, Inc.**

**From:** Mike Sharp
**To:** DIR OSHSB
**Subject:** Comments on Revision to 8 CCR 1532.1
**Date:** Tuesday, October 24, 2023 4:38:20 PM

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Comments from Michael C. Sharp on PROPOSED STATE STANDARD, TITLE 8, DIVISION 1, CHAPTER 4

TO: CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

We start testing workers (increase air sampling and increase blood lead sampling) and increase training at the Action level, but the rule would (does) not require us to protect the workers properly from lead until the PEL is reached.

We start (and will continue to start) protecting workers In the proposed rule at the PEL and above – suits and masks are required at 10 ug/m3.

We should protect workers at the lower levels and then test to see if the protection is working, not test and protect only if the testing indicates a need after the exposure has happened.

Scientists will claim there is no evidence that workers are exposed to unhealthy levels at the action level, but the fact is, there is no evidence that these low levels are not health adverse either. The day of saying "the lack of a scientific study proves the lack of a hazard" are over. The Federal EPA recently lost a lawsuit that prohibits them from using this statement as justification for not taking action against a potential hazard. Cal/OSHA should not wait to lose the same lawsuit before making this change.

The PEL should be at 2 and the action level should be at 10.

Waiting until the air samples show exposures above 10 ug/m3 can allow workers to be exposed to higher levels of led for up to a year if initial exposure assessments show low level exposures. This is far too long.

However, an airborne level of lead below 10 ug/m3 does not mean there is not significant amounts of lead in the air that is not being captured by the air sampling equipment. Lead air sampling uses a vacuum pump running between 1 and 4 liters per minute. Lead, unlike asbestos that will stay afloat for as long as there is air movement in the work area, is heavy and falls out of the air, often long before it has the potential to be captured by an air sampling exercise.

This means that workers clothing becomes more of a source of contamination that the air the workers are breathing in. Worse, low-level results for sample analyzed for lead, lead to a false sense of security and actually increases the potential for workers to track lead out of the work area, into their break areas, into the building outside of the work areas, into their vehicles and home to their families.

Protective clothing and showers should be required for activities that exceed the currently proposed action level of 2 ug/m3 or whenever any trigger task is conducted until a negative determination has been established below 2 ug/m3. Waiting until showers exceed 50 ug/m3 is in no way protective of workers. 50 ug/m3 has been the PEL for decades, yet the most common way for a worker to be over exposed to lead is through hand to mouth activities, not airborne lead levels. Showers need to be required far sooner if he intent is to protect workers' health.

When showers are determined not to be "feasible," contractors should be required to produce documentation for why they are not feasible. The contractor should also be required to produce a decontamination process that explains how the contractor will prevent track-out of lead when the shower is declared not to be feasible.

*Michael C. Sharp*
Senior Safety Officer

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***Hazmat Removal and Demolition for 30+ Years.***

| | |
|---|---|
| **From:** | Barbara Berney |
| **To:** | DIR OSHSB |
| **Subject:** | Lead Standard (Construction Safety Orders Section 1532.1 and General Industry Safety Orders Sections 5155 and 5198) |
| **Date:** | Wednesday, October 25, 2023 5:20:24 AM |
| **Attachments:** | Lead Standard comments.docx |

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Barbara Berney, PhD
4204 Mildred Avenue
Los Angeles, California 90066

David Thomas, Chair
Occupational Safety and Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833
*By email*: oshsb@dir.ca.gov.

Re: Lead Standard (Construction Safety Orders Section 1532.1 and General Industry Safety Orders Sections 5155 and 5198)

Dear Chair Thomas and members of the Occupational Safety and Health Standards Board:

I write in strong support of the important proposed amendments to title 8, CCR, section 1532.1 of the CSO, and sections 5155 and 5198 of the GISO, which are needed to protect California employees who have occupational exposure to lead. The proposal follows the health-based recommendations from the California Department of Public Health made more than ten years ago; it is past time for action to be taken to protect worker health. Research on lead over the past 50 years has demonstrated that there is no safe exposure to lead.

These important amendments will safeguard the health of workers, by lowering blood lead levels requiring medical exams and temporary removal from exposure substantially and the permissible air exposure level 5-fold. This change is based on overwhelming scientific evidence that lead causes high blood pressure, kidney disease, reproductive harm, and brain injury at low exposure levels.

Implementation of these amendments will reduce the number of employees exposed to harmful amounts of lead, in a wide variety of work settings, and it will also have a positive effect on California's environment.

I would like to make specific comments on the proposed rules relating to abrasive blasting:
There should be no exception for any amount of time for employees conducting abrasive blasting. There is no reason why these employees should be exposed to excessive amounts of lead for an additional five years.

In conclusion, I strongly support the proposed amendments to title 8, CCR, section 1532.1 of the CSO, and sections 5155 and 5198 of the GISO which lower permissible exposures to lead and allowable blood lead levels in workers, and urge the Board to adopt them in full.

Thank you for your attention to this important matter of occupational safety and health.

Sincerely,

Barbara Berney

Barbara Berney, PhD
Emeritus Associate Professor
CUNY School of Public Health

--
Barbara Berney

Barbara Berney, PhD
4204 Mildred Avenue
Los Angeles, California 90066

David Thomas, Chair
Occupational Safety and Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833
*By email*: oshsb@dir.ca.gov.

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These important amendments will safeguard the health of workers, by lowering blood lead levels requiring medical exams and temporary removal from exposure substantially and the permissible air exposure level 5-fold. This change is based on overwhelming scientific evidence that lead causes high blood pressure, kidney disease, reproductive harm, and brain injury at low exposure levels.

Implementation of these amendments will reduce the number of employees exposed to harmful amounts of lead, in a wide variety of work settings, and it will also have a positive effect on California's environment.

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There should be no exception for any amount of time for employees conducting abrasive blasting. There is no reason why these employees should be exposed to excessive amounts of lead for an additional five years.

In conclusion, I strongly support the proposed amendments to title 8, CCR, section 1532.1 of the CSO, and sections 5155 and 5198 of the GISO which lower permissible exposures to lead and allowable blood lead levels in workers, and urge the Board to adopt them in full.

Thank you for your attention to this important matter of occupational safety and health.

Sincerely,

Barbara Berney

Barbara Berney, PhD
Emeritus Associate Professor
CUNY School of Public Health

| | |
|---|---|
| **From:** | Cris Williams |
| **To:** | DIR OSHSB |
| **Subject:** | ILA comments on October 6, 2023 15-Day Package for Notice of Proposed Rulemaking – Construction Safety Orders Section 1532.1 and General Industry Safety Orders Section 5155 and 5198 |
| **Date:** | Wednesday, October 25, 2023 8:13:06 AM |
| **Attachments:** | ILA 15 Day Lead Comments 10_25_2023.pdf |

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To Whom it May Concern:

Please find attached the International Lead Association's ("ILA's") comments submitted in response to the 15-day package for the Notice of Proposed Rulemaking – Construction Safety Orders Section 1532.1 and General Industry Safety Orders Section 5155 and 5198 – of October 6, 2023.

Please contact me if you have any questions.

Thank you.

Cris

**Cris A. Williams, PhD**
**Senior Scientist – Health**

**International Lead Association**
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Sent from Mail for Windows

October 25, 2023

Ms. Sarah Money
Occupational Safety and Health Standards Board
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VIA E-mail: oshsb@dir.ca.gov

**RE: October 6, 2023 15-Day Package for Notice of Proposed Rulemaking – Construction Safety Orders Section 1532.1 and General Industry Safety Orders Section 5155 and 5198.**

Dear Ms. Money:

The International Lead Association ("ILA") appreciates the opportunity to continue to participate in the California Occupational Safety and Health Standards Board's (Standards Board) review and update of the state's occupational lead standards. ILA appreciates the California Department of Industrial Relations (DIR), Division Occupational Safety and Health's (Cal/OSHA) in-depth review and consideration of ILA's comments submitted in response to the Notice of Proposed Rulemaking on April 20, 2023. In response to the 15-day package for the Notice of Proposed Rulemaking of October 6, 2023, we offer the following comments.

The pages that follow provide ILA's comments on relevant portions of Appendix A ("Substance Data Sheet for Occupational Exposure to Lead") and Appendix C ("Medical Surveillance Requirements").

Please contact me if you have any questions.

Sincerely,

Cris Williams, Ph.D.
ILA Senior Scientist – Health

**Appendix A to Section 5198 – Substance Data Sheet for Occupational Exposure to Lead**

**Section II. – Health Hazard Data**

**Page 129, ¶ 2:** "Lead that is absorbed into your body by inhalation (breathing) and ingestion (swallowing) gets into your bloodstream."

**Comment:** This statement requires qualification as it may be interpreted to mean that ***all*** lead is absorbed into your body by inhalation (breathing) and ingestion (swallowing) and ***all*** lead gets into your bloodstream, and this is not the case. Lead absorption via inhalation and ingestion is dependent on many factors. According to ATSDR (2020)[1], inorganic lead in submicron size particles can be almost completely absorbed through the respiratory tract, whereas larger particles may be moved after deposition in the respiratory tract by mucociliary clearance toward the oropharynx and swallowed. The fraction of ingested lead absorbed from the gastrointestinal tract depends on many factors, including age, diet, nutrition, and physiological characteristics of lead in the medium ingested. Children can absorb 40 to 50% of an oral dose of water-soluble lead compared to 3 to 10% for adults.

**Page 129, ¶ 3:** "Similar forms of encephalopathy may, however, arise from extended, chronic exposure to lower doses of lead."

**Comment:** Here, and throughout Appendix A, qualitative statements like "lower doses" or "low-dose" or, similarly, "higher doses" or "high-dose" in reference to lead effects should be quantified.

**Page 129, ¶ 4:** "Sperm abnormalities may develop at relatively high blood lead levels (at or above 20 micrograms of lead per deciliter of whole blood (µg/dl))."

**Comment:** The available data indicate that blood lead concentrations much higher than 20 µg/dL can have a marked adverse impact upon semen quality. Aberrant sperm morphology, decreased sperm count, and decreased sperm density have all been demonstrated in heavily exposed individuals. Studies by Bonde et al. (1999)[2] and Bonde et al. (2002)[3] were of sufficient size to model dose-effect relationships and indicted a threshold for an effect of concurrent blood lead upon semen quality of 45 µg/dL. Significant changes in semen quality that may adversely impact reproductive function of the individual require exposures of more than 50 µg/dL. In the range of 50 to 60 µg/dL lead in blood, alterations in semen quality are relatively mild, but could be significant for individuals who (for other reasons) are already of marginal fertility.

**Page 130, ¶ 1:** "Exposure to lead may cause increased blood pressure, heart disease, and stroke."

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[1] Toxicological Profile for Lead. Atlanta (GA): Agency for Toxic Substances and Disease Registry (US); 2020 Aug. https://www.atsdr.cdc.gov/ToxProfiles/tp13.pdf.

[2] Bonde JP, Joffe M, Danscher G, Apostoli P, Bisanti L, Giwercman A, Kolstad HA, Thonneau P, Roeleveld N, Vanhoorne M. Objectives, designs and populations of the European Asclepios study on occupational hazards to male reproductive capability. Scand J Work Environ Health. 1999;25 Suppl 1:49-61; discussion 76-8.

[3] Bonde JP, Joffe M, Apostoli P, Dale A, Kiss P, Spano M, Caruso F, Giwercman A, Bisanti L, Porru S, Vanhoorne M, Comhaire F, Zschiesche W. Sperm count and chromatin structure in men exposed to inorganic lead: lowest adverse effect levels. Occup Environ Med. 2002 Apr;59(4):234-42.

**Comment:** This statement should be changed to read, “Exposure to lead may cause increased blood pressure, heart disease, and stroke, but these conditions are dose-, or blood-lead-concentration dependent.”

**Page 130, ¶ 2:** “Exposure to lead may cause declines in brain (cognitive) function, slowing of nerve conduction velocity, brain damage (encephalopathy), and nerve damage resulting in weakness or paralysis.”

**Comment:** This statement should be changed to read, “Exposure to lead may cause declines in brain (cognitive) function, slowing of nerve conduction velocity, brain damage (encephalopathy), and nerve damage resulting in weakness or paralysis, but these conditions are dose-, or blood-lead-concentration dependent.”

**Page 130, ¶ 3:** “Exposure to lead may cause declines in kidney function that can progress to kidney failure requiring dialysis and to death.”

**Comment:** This statement should be changed to read, “Exposure to lead may cause declines in kidney function that can progress to kidney failure requiring dialysis and to death, but these conditions are dose-, or blood-lead-concentration dependent.”

**Page 130, ¶ 4:** “Reduced birth weight of children exposed to lead during pregnancy has been documented.”

**Comment:** This statement should be changed to read, “Reduced birth weight of children exposed to lead during pregnancy has been documented, but these conditions are dose-, or blood-lead-concentration dependent.”

**Page 130, ¶ 4:** “Lead exposure also may result in decreased fertility and abnormal menstrual cycles in females.”

**Comment:** “Lead exposure” is imprecise and in the context of the above statement may imply “any exposure”. Although animal toxicity data as well as the available human data indicate fertility effects in females are probable, as are endocrine effects that may manifest in altered menstrual cycles, the dosimetry for fertility and endocrine effects in females cannot be estimated with precision, but effects do not appear to occur at exposure levels that characterize the upper limits of modern occupational exposure limits. Effects upon female fertility likely occur at blood lead levels more than 50 µg/dL as probable side effects of more generalized systemic toxicity.

**Page 130, ¶ 5:** “Exposure to lead may result in decreased sex drive, impotence, and sterility in males. Lead can alter the structure of sperm cells raising the risk of birth defects. There is evidence of miscarriage and stillbirth in females whose reproductive partners were exposed to lead or who were exposed to lead themselves.”

Comment: “Exposure” is imprecise and may be interpreted to mean ***any*** exposure and thus is potentially misleading, unless by “exposure” the above statement implies blood lead concentrations more than 45 ug/dL. As stated previously, the threshold for an effect of blood lead upon semen quality is around 45 µg/dL. Significant changes in semen quality that may adversely impact reproductive function of the individual require exposures of more than 50 µg/dL. In the range of 50 to 60 µg/dL lead in blood, alterations in semen quality are relatively

mild, but could be significant for individuals who (for other reasons) are already of marginal fertility.

Further, the evidence of "miscarriage and stillbirth in females whose reproductive partners were exposed to lead or who were exposed to lead themselves" should be qualified – i.e., what evidence, at what blood lead level, etc.?

**Page 131, ¶ 2:** "Exposure to lead also disrupts the blood-forming system resulting in decreased hemoglobin (the substance in the blood that carries oxygen to the cells) and ultimately anemia."

**Comment:** "Exposure" is imprecise and may be interpreted to mean ***any*** exposure and thus is potentially misleading. In addition, although ALAD (aminolevulinic acid dehydratase) conversion of ALA to porphobilinogen in hemoglobin synthesis is sensitive to inhibition by lead, Hernberg and Nikkanem (1970)[4] demonstrated 50% ALAD inhibition at blood lead levels of 16 µg/dL and observed no demonstrable threshold for this effect with effects extending below 10 µg/dL. Inhibition appears to be freely reversible, meaning that ALAD activity increases and decreases as a function of current lead exposure (Tola et al. 1973[5], Haeger-Aronson 1974[6]). Levels of ALAD activity appear to play little part in regulating the overall rate of heme biosynthesis (Moore and Goldberg 1985[7]). As a result, ALAD inhibition does not affect overall levels of heme production and is thus not regarded as a clinically adverse effect.

**Page 131, ¶ 3:** "The BLLs of employees who intend to have children should be maintained below 3.5 µg/dl to minimize adverse reproductive health effects."

**Comment:** As noted previously regarding decreased fertility and abnormal menstrual cycles in women, the dosimetry for fertility and endocrine effects in women cannot be estimated with precision, but effects do not appear to occur at exposure levels that characterize the upper limits of modern occupational exposure limits. In addition, the selection of a 3.5 µg/dl BLL is inappropriately low, as this is the BLL numerical equivalent to CDC's reference value, a BLL based not on any known or presumed health effect associated with lead exposure, but rather a statistically based BLL representing the 97.5$^{th}$ percentile BLL in children in the U.S.

**Page 131, ¶ 5: "**Health damage has been found at chronic BLLs of 5 µg/dl and greater, including high blood pressure, reduced birth weight, and kidney dysfunction."

**Comment:** Characterizing all these conditions as being associated with a BLL of 5 µg/dL is misleading. For example, although NTP (2012)[8] stated that there is *sufficient* evidence that BLLs of 5 µg/dL are associated with adverse effects on kidney function in adults, it also stated that there is *inadequate* evidence to address the potential association between blood Pb levels <10 µg/dL in children <12 years of age and impaired kidney function, and *limited* evidence that BLLs

[4] Hernberg S, Nikkanen J. Enzyme inhibition by lead under normal urban conditions. Lancet. 1970 Jan 10;1(7637):63-4.
[5] Tola S, Hernberg S, Asp S, Nikkanen J. Parameters indicative of absorption and biological effect in new lead exposure: a prospective study. Br J Ind Med. 1973 Apr;30(2):134-41.
[6] Haeger-Aronsen B, Abdulla M, Fristedt BI. Effect of lead on delta-aminolevulinic acid dehydratase activity in red blood cells. II. Regeneration of enzyme after cessation of lead exposure. Arch Environ Health. 1974 Sep;29(3):150-3.
[7] Moore, M., and Goldberg, A. (1985). Health Implications of the Hematopoietic Effects of Lead: In: Mahaffey, K. ed., Dietary and Environmental Lead: Human Health Effect. Science Publishers, B.V.
[8] National Toxicology Program. NTP monograph on health effects of low-level lead. NTP Monogr. 2012 Jun;(1):xiii, xv-148.

<5 µg/dL are associated with adverse effects on kidney function in children ≥12 years of age. NTP's definition of "limited evidence" is "an association is observed between the exposure and health outcome in studies in which chance, bias, and confounding could not be ruled out with reasonable confidence."

**Appendix C to Section 5198 – Medical Surveillance Requirements**

**Section II. – Adverse health effects of inorganic lead**

**Page 168, ¶ 4:** "The provisions of the lead standard are founded on two prime medical judgments: first, the prevention of adverse health effects from exposure to lead throughout a working lifetime requires that employee BLLs be maintained as low as possible; and second, the BLLs of employees, male or female, who are trying to conceive should be maintained below 3.5 µg/dl to minimize adverse reproductive health effects."

**Comment:** As noted previously in the comments in response to statements in Appendix A, the selection of a 3.5 µg/dl BLL is inappropriately low, as this is the BLL numerical equivalent to CDC's reference value, a BLL based not on any known or presumed health effect associated with lead exposure, but rather a statistically based BLL representing the 97.5$^{th}$ percentile BLL in children in the U.S.

**Page 169, ¶ 2:** "Current evidence indicates a causal relationship between lead exposure and hypertension, and between lead exposure and coronary heart disease."

**Comment:** "Current evidence" is non-specific and should be supported by citations in the scientific literature. In addition, as detailed in ILA comments in response to the Notice of Proposed Rulemaking on April 20, 2023, studies have failed to demonstrate a causal relationship between lead exposure and hypertension, and between lead exposure and coronary heart disease. Specifically, Staessen and colleagues have repeatedly reported only marginal increases, or a lack of an increase, in blood pressure with lead exposure. For example, in a meta-analysis of summary statistics extracted from 31 studies involving 58,518 participants[9], doubling of blood lead was associated with a marginally higher blood pressure. The summative estimates averaged 1.0 mmHg systolic and 0.6 mmHg diastolic. In a prospective population study of 728 individuals (50.7% women; age range, 20 to 82 years)[10], blood pressure was measured conventionally at baseline (1985 to 1989) and at follow-up (1991 to 1995), and by 24-hour ambulatory monitoring at follow up. Over a median follow-up of 5.2 years, the geometric mean blood lead concentration dropped by 32% from the baseline level of 8.7 µg/dL. The small changes in the systolic/diastolic blood pressure on conventional measurement (−1.5/+1.7 mmHg) were unrelated to the blood lead concentration at baseline or to the blood lead changes over follow-up. Similarly, the 24-hour ambulatory blood pressure was not associated with blood lead at baseline or follow up.

Further, the concept that hypertension explains the association of total and cardiovascular mortality with lead exposure, as proposed by Lanphear et al. (2018)[11], rests primarily on three NHANES III reports and the 2012 Global Burden of Disease review.[12] The NHANES III participants

[9] Nawrot TS, Thijs L, Den Hond EM, Roels HA, Staessen JA. An epidemiological re-appraisal of the association between blood pressure and blood lead: a meta-analysis. J Hum Hypertens. 2002 Feb;16(2):123-31.

[10] Staessen JA, Roels H, Fagard R. Lead exposure and conventional and ambulatory blood pressure: a prospective population study. PheeCad Investigators. JAMA. 1996 May 22-29;275(20):1563-70.

[11] Lanphear BP, Rauch S, Auinger P, Allen RW, Hornung RW. Low-level lead exposure and mortality in US adults: a population-based cohort study. Lancet Public Health. 2018 Apr;3(4):e177-e184. doi: 10.1016/S2468-2667(18)30025-2.

[12] Yu YL, Yang WY, Thijs L, Melgarejo JD, Yu CG, Wei DM, Wei FF, Nawrot TS, Zhang ZY, Staessen JA. Two-Year Responses of Office and Ambulatory Blood Pressure to First Occupational Lead Exposure. Hypertension. 2020 Oct;76(4):1299-1307.

had been recruited from 1988 until 1994. In particular, the Lanphear (2018) report on the long-term association between mortality and blood lead over a median follow-up of 19.3 years has little relevance for public health policies in the second decade of the 21st century. This is due to the non-representativeness of NHANES III blood lead levels for contemporary exposure; the excessively low threshold for which the population attributable risk fraction of mortality in relation to blood lead was computed (blood lead concentration below 1.0 µg/dL); the absence of a firmly proven causal pathway linking mortality to lead at present-day environmental exposure levels; lack of consideration of competing risks and residual confounding; and the drastic reduction over the past 20 years in the case-fatality rates associated with coronary, cerebrovascular and other vascular accidents by application of modern pharmacological and invasive therapies. In addition, the baseline blood lead concentrations in NHANES III (1988 to 1994), with higher age, increasingly represented the preexisting body burden originating from historical environmental lead contamination. The Global Burden of Disease report assumed that lead exposure, via its pressor effect, was a direct cause of a panoply of cardiovascular diseases, including right heart disease; ischemic heart disease; ischemic, hemorrhagic and other nonischemic stroke; hypertensive heart disease; aortic aneurysm; the aggregate of cardiomyopathy, myocarditis and endocarditis; the aggregate of atrial fibrillation and flutter; pulmonary vascular disease; other cardiovascular disease; and chronic kidney disease: all conditions for which there is little evidence in the scientific literature that they are related to increased blood pressure.

**Page 169, ¶ 2:** "Prospective cohort studies have demonstrated an approximate 50% increase in cardiovascular mortality associated with chronic BLLs of 10 µg/dl or greater. Increased cardiovascular mortality has also been associated with BLLs below 10 µg/dl. . . Nonetheless, lead exposure is associated with increased cardiovascular and stroke mortality even after accounting for the effects of hypertension."

**Comment:** As previously noted in ILA comments in response to the Notice of Proposed Rulemaking on April 20, 2023, the principal study serving as the basis for the above statements is most likely Lanphear et al. (2018)[13]; however, the Lanphear study results could be questioned on the basis of several fundamental study design flaws: 1) the association between mortality and blood lead demonstrated from blood lead surveys from the late 1980s have little relevance to blood lead in the second decade of the 21st century; 2) there exists an absence of a firmly proven causal pathway linking mortality to lead at present-day environmental exposure levels; 3) the study neglected to consider competing risks and residual confounding; and 4) there has occurred drastic reductions over the past 20 years in the case-fatality rates associated with coronary, cerebrovascular and other vascular accidents by application of modern pharmacological and invasive therapies.

**Page 169, ¶ 3:** "The earliest hematologic effect of lead involves lead's ability to inhibit at least two enzymes of the heme synthesis pathway at very low blood lead BLLs. Inhibition of delta aminolevulinic acid dehydratase (ALA-D) which catalyzes the conversion of delta-aminolevulinic acid (ALA) to protoporphyrin is observed at a BLL as low as 10 µg/dl. At a BLL of 40 µg/dl, more than 20% of the population would have 70% inhibition of ALA-D. There is an exponential increase in ALA excretion at blood lead BLLs greater than 40 µg/dl."

**Comment:** As previously noted in these comments, for the hematologic effects of lead, although ALAD (aminolevulinic acid dehydratase) conversion of ALA to porphobilinogen is sensitive to

[13] Lanphear BP, Rauch S, Auinger P, Allen RW, Hornung RW. Low-level lead exposure and mortality in US adults: a population-based cohort study. Lancet Public Health. 2018 Apr;3(4):e177-e184. doi: 10.1016/S2468-2667(18)30025-2.

inhibition by lead, this inhibition appears to be freely reversible, and levels of ALAD activity appear to play little part in regulating the overall rate of heme biosynthesis. As a result, ALAD inhibition does not affect overall levels of heme production and is thus not regarded as a clinically adverse effect.

**Page 169, ¶ 4: "**Inhibition of ferrochelatase leads to increased free erythrocyte protoporphyrin (FEP) in the blood which can then bind to zinc to yield zinc protoporphyrin (ZPP). At a BLL of 50 µg/dl or greater, nearly 100% of the population will have an increase in FEP. There is also an exponential relationship between BLLs greater than 40 µg/dl and the associated ZPP level, which has led to the development of the ZPP screening test for lead exposure."

**Comment:** ZPP elevation occurs when BLLs are between 25 to 30 µg/dL in males and between 15-20 µg/dL in females (EPA 1986[14], Roels and Lauwerys 1987[15]). Below this level of exposure, effects on ZPP cannot be reliably distinguished from background levels of ZPP and/or changes related to nutritional confounding by dietary factors such as modest iron deficiency. Since occupational exposures and corresponding BLLs today are far lower, and there is poor association between ZPP and contemporary BLLs, the ZPP test requirement should be (and is being) removed from the proposed construction and general industry lead standards.

**Page 170, ¶ 5:** "Lead exposure is associated with decrements in neurological function in adults. Effects at BLLs ≤10 µg/dl include decreased cognitive function, altered behavior and mood, and altered neuromotor and neurosensory function. At higher BLLs, a variety of decrements in cognitive function and behavior and nerve function can occur. These effects may be irreversible."

**Comment:** As previously noted in ILA comments in response to the Notice of Proposed Rulemaking on April 20, 2023, many neurological effects attributable to lead exposure are frequently reversible following discontinued exposure, and when improvement does occur, it can be complete. For example, studies have been published in the past 10 years describing dose-dependent effects of lead upon established neuropsychological or neurophysiological endpoints. Although the quality of these more recent studies is uneven, taken as a whole, recent studies are consistent with the conclusions drawn by Meyer-Baron and Seeber (2000)[16] – i.e., effects upon neuropsychological function seen as blood lead levels rise above 40 µg/dL are largely subclinical in nature and appear to reverse to upon cessation of lead exposure.

**Page 170, ¶ 6:** ". . . peripheral neuropathy can occur with varying degrees of severity. The earliest and mildest form which can be detected in employees with BLLs over 30 µg/dl is manifested by slowing of motor nerve conduction velocity often without clinical symptoms."

**Comment:** As previously noted in ILA comments in response to the Notice of Proposed Rulemaking on April 20, 2023, the literature suggests that elevated lead exposure for a duration of at least one year is required for neuropathy. The exposure intensity required to produce

[14] United States Environmental Protection Agency (US EPA) (1986). Air Quality Criteria for Lead. Research Triangle Park, NC: US Environmental Protection Agency' Office of Research and Development, Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office, Volumes I-IV. EPA 600/8-83-028F.

[15] Roels, Harry; Lauwerys, Robert. Evaluation of dose-effect and dose-response relationships for lead exposure in different Belgian population groups (fetus, child, adult men and women). In: Trace Elements in Medicine, Vol. 4, no. 2, p. 80-87 (1987).

[16] Meyer-Baron M, Seeber A. A meta-analysis for neurobehavioural results due to occupational lead exposure with blood lead concentrations <70 microg/100 ml. Arch Toxicol. 2000 Jan;73(10-11):510-8.

effects was likely significantly more than 70 µg/dL. Even at these exposure extremes, neuropathies were reported to be reversible although recovery was not always complete.

**Page 171, ¶ 5:** "Kidney dysfunction is thought to occur at chronic BLLs of 5-10 µg/dl or greater but also may arise after acute high-dose lead exposures."

**Comment:** BLLs in the range of 5 to 10 µg/L are far below the threshold for known renal effects of lead in adults. Occupational studies indicate that individuals with blood lead levels maintained below 60 µg/dL have renal function (e.g., glomerular filtration rates) equal or superior to individuals without occupational exposure. As initially observed by Buchet et al. (1980)[17], and subsequently confirmed by Gerhardsson et al. (1992)[18], Gennart et al. (1992)[19], Verschoor et al. (1987)[20], Cardenas et al. (1993)[21], Roels et al. (1994)[22], Weaver et al. (2003)[23], and Evans et al. (2017)[24], maintenance of blood lead levels at or below 60 µg/dL appears to guard against the onset of lead nephropathy. The recent two-year longitudinal study of workers known as SPHERL (Study for the Promotion of Health in Recycling Lead) showed no evidence for an association between glomerular filtration rate and lead exposure at blood lead levels up to 15 µg/dL (Mujaj et al. (2019)[25]. However, lead nephropathy has been observed in individuals with blood lead levels more than 60 µg/dL for five or more years. The collective studies indicate a threshold for significant renal effects that is more than 60 µg/dL lead in blood and with a requirement for prolonged (five years or more) lead exposure.

**Page 171, ¶ 7:** "Malformed sperm (teratospermia), decreased number of sperm (hypospermia), and sperm with decreased motility (asthenospermia) can all occur. These adverse effects may occur at BLLs of 20 µg/dl or greater. Furthermore, there appears to be a dose-response relationship for teratospermia in lead-exposed employees.

**Comment:** As detailed previously in these comments, the available data indicate that blood lead concentrations much higher than 20 µg/dL are required to have a marked adverse impact upon semen quality. Aberrant sperm morphology, decreased sperm count, and decreased sperm density have all been demonstrated in heavily exposed individuals. Studies by Bonde et al.

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[17] Buchet JP, Roels H, Bernard A, Lauwerys R. Assessment of renal function of workers exposed to inorganic lead, calcium or mercury vapor. J Occup Med. 1980 Nov;22(11):741-50.

[18] Gerhardsson L, Chettle DR, Englyst V, Nordberg GF, Nyhlin H, Scott MC, Todd AC, Vesterberg O. Kidney effects in long term exposed lead smelter workers. Br J Ind Med. 1992 Mar;49(3):186-92.

[19] Gennart JP, Buchet JP, Roels H, Ghyselen P, Ceulemans E, Lauwerys R. Fertility of male workers exposed to cadmium, lead, or manganese. Am J Epidemiol. 1992 Jun 1;135(11):1208-19.

[20] Verschoor M, Wibowo A, Herber R, van Hemmen J, Zielhuis R. Influence of occupational low-level lead exposure on renal parameters. Am J Ind Med. 1987;12(4):341-51.

[21] Cárdenas A, Roels H, Bernard AM, Barbon R, Buchet JP, Lauwerys RR, Roselló J, Ramis I, Mutti A, Franchini I, et al. Markers of early renal changes induced by industrial pollutants. II. Application to workers exposed to lead. Br J Ind Med. 1993 Jan;50(1):28-36.

[22] Roels H, Lauwerys R, Konings J, Buchet JP, Bernard A, Green S, Bradley D, Morgan W, Chettle D. Renal function and hyperfiltration capacity in lead smelter workers with high bone lead. Occup Environ Med. 1994 Aug;51(8):505-12.

[23] Weaver VM, Schwartz BS, Ahn KD, Stewart WF, Kelsey KT, Todd AC, Wen J, Simon DJ, Lustberg ME, Parsons PJ, Silbergeld EK, Lee BK. Associations of renal function with polymorphisms in the delta-aminolevulinic acid dehydratase, vitamin D receptor, and nitric oxide synthase genes in Korean lead workers. Environ Health Perspect. 2003 Oct;111(13):1613-9.

[24] Evans M, Discacciati A, Quershi AR, Åkesson A, Elinder CG. End-stage renal disease after occupational lead exposure: 20 years of follow-up. Occup Environ Med. 2017 Jun;74(6):396-401.

[25] Mujaj B, Yang WY, Zhang ZY, Wei FF, Thijs L, Verhamme P, Staessen JA. Renal function in relation to low-level environmental lead exposure. Nephrol Dial Transplant. 2019 Jun 1;34(6):941-946.

(1999)[26] and Bonde et al. (2002)[27] were of sufficient size to model dose-effect relationships and indicted a threshold for an effect of concurrent blood lead upon semen quality of 45 µg/dL. Significant changes in semen quality that may adversely impact reproductive function of the individual require exposures of more than 50 µg/dL.

**Page 172, ¶ 2**: "Females exposed to lead may experience menstrual disturbances including dysmenorrhea, menorrhagia, and amenorrhea. Following exposure to lead, females have a higher frequency of sterility, premature births, spontaneous miscarriages, and stillbirths.

**Comment:** "Females exposed to lead" is imprecise (how much lead?) and in the context of the above statement may imply "any exposure". As detailed previously in these comments, although animal toxicity data as well as the available human data indicate fertility effects in females are probable, as are endocrine effects that may manifest in altered menstrual cycles, the dosimetry for fertility and endocrine effects in women cannot be estimated with precision, but effects do not appear to occur at exposure levels that characterize the upper limits of modern occupational exposure limits. Effects upon female fertility likely occur at blood lead levels more than 50 µg/dL as probable side effects of more generalized systemic toxicity.

In addition, "following exposure to lead" is equally imprecise regarding the amount of lead exposure associated with sterility, premature births, spontaneous miscarriages, and stillbirths.

**Page 172, ¶ 3**: "Germ cells can be affected by lead and lead can cause genetic damage in the egg or sperm cells before conception and contribute to failure to implant, miscarriage, stillbirth, or birth defects."

**Comment:** The statement "lead can cause genetic damage in the egg . . ." is imprecise (how much lead?) and in the context of the above statement may imply "any exposure." In addition, the statement implies that effects of lead on germ cells are directly responsible for failure to implant, miscarriage, stillbirth, or birth defects, when in fact such effects may be caused by a multitude of factors unrelated to lead exposure.

**Page 172, ¶ 4**: "Maternal lead exposure during pregnancy is associated with gestational hypertension, spontaneous abortion, low birth weight, and impaired neurodevelopment."

**Comment:** "Maternal lead exposure" is imprecise and as detailed previously in these comments, data relating prenatal blood levels to preterm delivery, gestational age and/or birth weight are mixed and provide uncertain results. A weight-of-evidence evaluation indicates that effects do not occur at blood lead levels up to 30 µg/dL, but studies are not adequate to determine the extent of the higher exposure levels that would be required to produce effects.

**Page 172, ¶ 8**: "Debate and research continue on the effects of lead on the human body. Lead may impair the immune and endocrine systems, including thyroid function and the pituitary-adrenal axis, but these effects and the corresponding level of exposure have not been well defined. Also, although the epidemiologic data is limited and inconsistent, based on toxicologic

[26] Bonde JP, Joffe M, Danscher G, Apostoli P, Bisanti L, Giwercman A, Kolstad HA, Thonneau P, Roeleveld N, Vanhoorne M. Objectives, designs and populations of the European Asclepios study on occupational hazards to male reproductive capability. Scand J Work Environ Health. 1999;25 Suppl 1:49-61; discussion 76-8.

[27] Bonde JP, Joffe M, Apostoli P, Dale A, Kiss P, Spano M, Caruso F, Giwercman A, Bisanti L, Porru S, Vanhoorne M, Comhaire F, Zschiesche W. Sperm count and chromatin structure in men exposed to inorganic lead: lowest adverse effect levels. Occup Environ Med. 2002 Apr;59(4):234-42.

data and animal studies, lead is considered a probable human carcinogen by several authoritative sources."

**Comment:** "Lead may impair. . ." is non-specific and in the context of the above statement may imply "any amount of lead." This is especially misleading given the wide array of health effects listed – immune effects, endocrine system effects (including effects on thyroid function and the pituitary-adrenal axis), and cancer.

**From:** Monica Urrea
**To:** DIR OSHSB
**Subject:** support letter for Cal/OSHA modifications to TITLE 8: Section 1532.1
**Date:** Wednesday, October 25, 2023 12:57:01 PM
**Attachments:** Dave Thomas letter.pdf

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Mr. Thomas
On behalf of Local 433, here is our support letter.
Thank you

--
Monica Urrea
Office Manager
Local 433
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Industry, CA 91744
626-964-2500 Ext 106

# Ironworkers Local 433

International Association of Bridge, Structural &
Ornamental Iron Workers A.F.L.-C.I.O.
Established 1929

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PAUL R. MORENO
President
Business Agent


October 25th, 2023

Dave Thomas
Chair, California Occupational Safety and Health Standards Board
2520 Venture Oaks Way, Ste 350
Sacramento, CA 95833

RE: Proposed Modifications to California Code of Regulations Title 8 Section 1532.1 of the Construction Safety Orders; and Sections 5155 and 5198 of the General Industry Safety Orders

Dear Chairman Thomas,

On behalf of Ironworkers Local 433, I write in strong support of the proposed California Occupational Safety and Health (Cal/OSHA) modifications to TITLE 8: Section 1532.1 of the Construction Safety Orders; and Sections 5155 and 5198 of the General Industry Safety Orders dealing with worker exposure to lead.

Ironworkers Local 433 represents nearly 5600 working men and women in the construction industry including over 1200 apprentices in our Apprenticeship program. They are trained to report unsafe conditions and to refuse work if they feel their lives are in danger. To use this empowerment, they rely upon state agencies such as Cal/OSHA to enforce the robust worker safety and health regulations and laws that the entire labor movement has fought to enshrine in state law for nearly one hundred years.

As noted in the "Statement of Reasons" for this regulatory proposal, the current standard protecting workers from exposure to lead has relied on epidemiological and medical data about lead toxicity that is over forty years old. We applaud the research and data tracking efforts of the California Department of Public Health (CDPH) that have brought us to this point in the regulatory process. Their important toxicity data updates and studies have shown that the time has come to finally update these standards so that workers are as protected as possible from the devastating health effects of lead exposure. As CDPH notes in their guidance documents, lead poisoning continues to be a major problem in the U.S and continues to be one of the most insidious workplace safety dangers despite decades of government and industry intervention to outlaw and prohibit its use.

While there are many ways a person can be exposed to lead, most adults with harmful lead levels are exposed on the job. It can cause serious and permanent health problems and even low levels of exposure over years or decades can cause damage. A person ingests lead by breathing it in or swallowing it when lead dust, mist, or fumes are in the air. A worker can also swallow particles of lead if lead gets on their hands, clothing, or face and, most devastatingly, that worker can bring it home on their work clothes and expose their families, making them unwitting secondary exposure cases. After a person is exposed to lead, it is absorbed into the bloodstream and then circulates throughout the body. Some of the lead that is absorbed is removed right away by the kidneys into the urine but the lead that is not removed is stored in the body mostly in the bones and may stay there for years. Lead in bone is slowly released back into the bloodstream over time. Because lead is stored in the bones, exposure to even small amounts of lead over a long period of time can be harmful.

Lead exposure can damage the brain, nerves, red blood cells, kidneys, and reproductive systems of men and women. Lead easily crosses the placenta in a pregnant woman and can harm the fetus. Lead can also cause high blood pressure, miscarriage, and other serious health problems and increases the risk of death related to heart disease or stroke. Damage from lead exposure can be permanent. Unfortunately, the use of lead was so widespread decades before it was banned that it is still prevalent in our society. And our members, especially those who are not specially trained to work in the lead removal and mitigation part of our industry but are simply on a jobsite carrying out their portion of a construction project, may not know that they are being exposed to lead and that they need to take measures to protect themselves.

That is why our members, and all workers need strong, updated, and industry recognized regulatory protection in place. The proposed standards I write to you about today, will remind employers that they have a critical role in worker health and safety, that they need to take that role seriously, and that when needed Cal/OSHA will be able to step in to remind employers that strong health and safety regulations exist and should be followed.

We applaud you, Standards Board staff, and your fellow Board Members for their hard work on this proposed standard and urge you to stand strong with workers and their families in the face of employer opposition and support the proposed amendments to TITLE 8: Section 1532.1 of the Construction Safety Orders; and Sections 5155 and 5198 of the General Industry Safety Orders.

Please do not hesitate to call me if I can provide insight and perspective about our position.

Sincerely,

Paul Moreno
President/Business Agent
Ironworkers Local 433

**From:** Marc Connerly
**To:** DIR OSHSB
**Cc:** Bruce Wick (bwick@housingcontractors.org); Steve Johnson
**Subject:** Cal/OSHA Proposed Lead Regulations - 15 Day Language Construction Industry Coalition Response
**Date:** Wednesday, October 25, 2023 2:26:50 PM
**Attachments:** 2023 10 25 CalOSHA Lead Coalition Letter (2nd 15-Day Language).pdf

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To Whom It May Concern:

On behalf of the 27 organizations listed on page 4 of the attached letter, including 25 construction organizations, please find our response to the "Notice of Proposed Modifications to California Code of Regulations (Lead)" issued on October 6, 2023.

We would be most appreciative if this letter would be shared with the Standards Board members as soon as possible.

This letter supersedes the letters previously submitted by the construction industry coalition on April 17, 2023 and July 19, 2023.

Please feel free to email me at this address with any questions.

Best regards,

Marc Connerly, Executive Director
Roofing Contractors Association of California
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*RCAC is dedicated to the protection and advancement of the California roofing industry in legislative, regulatory and business affairs.*

October 25, 2023

The Honorable David Thomas, Chair
Cal/OSHA Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

Re: Response to "Cal/OSHA Standards Board 15-Day Comment Period", issued October 6, 2023, Proposed General Industry and Construction Lead Standards.

The undersigned organizations have reviewed the Cal/OSHA Standards Board proposed changes issued in the October 6, 2023 "15-Day Comment Period" to the "California Code of Regulations, Title 8, Section 1532.1 Lead", and we respectfully submit the following comments and recommendations for the lead in construction standard.

This coalition appreciates that some of the unnecessary requirements in the last proposal have been reduced or eliminated in this revision. There are still many more changes that need to be made before this proposal could become an effective regulation.

**Issues that must be addressed**

**The SRIA costs are hugely understated**. The employers who would have to actually implement and pay for these regulations have calculated the realistic costs of this regulation. The SRIA states that the 10-year costs for construction are $862 Million. **The actual costs are $38 Billion.** The actual costs are 44 times what the SRIA estimates. This must be addressed.

In the absence of recent and meaningful advisory committee meetings and a side-by-side comparison of the original Lead in Construction proposal, stakeholders were not allowed the time or opportunity to present the real costs to employers. **The SRIA that was offered with the current proposed changes to the lead regulation is outdated and provides inaccurate cost estimates.**

**An unprecedented reduction in the PEL and AL Reductions of 80% and 93% respectively, have no justification from the information provided by Cal/OSHA.** Action Levels and Permissible Exposure Limits must be set at reasonable and achievable levels. Cal/OSHA has not demonstrated any credible evidence for reducing the Action Level and Permissible Exposure Limits to these unrealistic levels.

**This revised proposal is still overbroad and confusing.** With many more contractors (even those with minimal exposures) having to attempt to comply with this regulation, this regulation must be made clearer and simpler.

**This proposal expands the "presumed" exposure of trigger tasks regardless of frequency and duration of the task to require "interim protection."** This is not a feasible approach to protecting employees from lead exposure. Additionally, there is no rationale for moving more trigger tasks into the "Level 3 Trigger Task" designation. The trigger tasks must be moved to align with the Federal lead regulation.

**The training requirements go far beyond any reasonable position.** The Federal regulation has reasonable training requirements for housekeeping and hygiene. The Federal regulation also requires training when workers are exposed to lead at or above an action level of 30mg. This proposal requires "effective" training for an employee exposed at, or above, an action level of 2mg. **Many employees could be exposed to 2mg, <u>even if they never work with lead</u>.**

**The Training must include all 38 pages of the regulation, plus the 24 pages of Appendices A and B.** Effective "training" as mandated by Cal/OSHA means a Cal/OSHA inspector could ask an employee on any part of the 62 pages and expect a clear and precise answer. If the employee doesn't answer correctly, the employer receives a citation.

**The many components for compliance and implementation are complex and costly.** Costs include experts, medical assessments and services, blood draws, logistics, supplies, equipment, personnel hours, travel and per diem, and training certification.

**Components of Compliance and Implementation:**

| | |
|---|---|
| Initial Exposure Assessment | Personnel Protective Clothing |
| Blood Level Testing | Changing Stations |
| Notification of Blood Level Testing | Eating Facilities |
| Training: Supervisors and Employees | Regulated Areas |
| Compliance Program | Medical Exams |
| Respiratory Protection | Recordkeeping |

We have calculated costs based on 86,000 Class C licensees, 50,000 supervisors and 110,000 employees (for a total employee community of 160,000) and included all elements of compliance and implementation, which the SRIA fails to do.

Cal/OSHA asserts that compliance costs to each Large Business in Year 1 will be $10,647 and $8,514 in subsequent years. For a Small Business (100 or less employees) the costs will be $5,989 in Year 1 and $4,837 in subsequent years. **The actual cost is $46,000 annually per business. The SRIA is incorrect by a factor of 400% for Large Businesses and 750% for Small Businesses.**

**To focus on just one cost, "Training" alone is $259 Million annually…4 times the TOTAL Annual SRIA for the ENTIRE Lead Standard.** The required Lead Construction Related Supervisor Training (LRC) is a 40-hour course, at $770 per Supervisor, PLUS exam fees, annual CDPH fee, biennial certification renewal, personnel hours, travel and per diem, and Supervisor training of 110,00 employees on extensive and complex issues.

There are many unanswered questions about medical removal procedures and the impacts on employers and employees, workers' comp implications, and unaddressed concerns about fertility issues, making it impossible to project these additional costs.

**The Division and the Standards Board need to take one of the following two options to properly amend the lead in construction regulations.**

- **Rescind this entire proposal and start over. This process started in 2011. Great strides continue to be made in reducing lead exposure in construction products used and installed. The Division should engage in true stakeholder meetings focused on the construction regulations, separate from stakeholder meetings on general industry. Justify the necessity, and work together to develop an effective regulation.**

- Require a 3-year delay after approval by OAL. During this time, require the Division to conduct the above referenced stakeholder meetings to eliminate the unnecessary requirements, and develop a clear and workable regulation.

Governor Newsom has said his Administration is taking an "all of government" approach to the decarbonization of existing buildings in order for the state to achieve carbon neutrality by 2045. Under Cal/OSHA staff's proposed AL and PEL, a significant and new cost multiple will be added to the price tag of building decarbonization for contractors and their customers. Ironically, these new costs will detract from the actual goal of building decarbonization. Market access to the capital needed for these projects by public and private building owners is already strained to the limit. **Has Cal/OSHA staff considered the fact that any new and unnecessary costs created by this rule directly threatens our state's ability to fund and therefore achieve the Administration's goal of carbon-neutrality by 2045?**

**In conclusion, stakeholders have not been included in any meaningful dialogue with Cal/OSHA regarding the changes made to the "Lead in Construction Standard."** Instead, Cal/OSHA has refused to find a workable solution to a compromise regarding an Action Level and Permissible Exposure Limit that is reasonable for employers and employees. Cal/OSHA continues its practice of simply informing employers of the changes made and expecting 100% compliance without question. **The Administrative Procedures Act (APA) requires Cal/OSHA to demonstrate a compelling reason to change regulation.** Implicit in this demonstration is to show where the current lead regulation is falling short in achieving reduced BLLs in these workplaces. This requires demonstrating with credible evidence that worker BLLs are indeed unsafe due to actual and identified activity exposures at the workplace. That burden has not been met.

The Lead in Construction Coalition stands ready to engage with Cal/OSHA to develop common sense regulations starting with existing worker protections found in Federal Regulations that employers can understand and implement into "real world operations."

Respectfully,
Lead in Construction Coalition

- American Subcontractors Association of California
- Associated Roofing Contractors of the Bay Area Counties
- Building Owners and Managers Association
- California Hispanic Chambers of Commerce
- California Sheet Metal and Air Conditioning Contractors, National Association
- California Building Industry Association
- California Business Properties Association
- California Framing Contractors Association
- Construction Employers' Association
- Flasher Barricade Association
- Housing Contractors of California
- National Electrical Contractors Association
- National Roofing Contractors Association
- Northern California Allied Trades
- Orange County Hispanic Chamber of Commerce
- Painting and Decorating Contractors of California
- Residential Contractors Association
- Roofing Contractors Association of California
- Southern California Contractors Association
- Southern California Glass Management Association
- Union Roofing Contractors
- United Contractors Association
- Wall and Ceiling Alliance
- Western Electrical Contractors
- Western Painting & Coatings Contractors Association
- Western Wall & Ceiling Contractors Association
- Western Steel Council

American Subcontractors Association of California

Associated Roofing Contractors of the Bay Area Counties

Building Owners and Managers Association of California

California Association of Sheet Metal and Air Conditioning Contractors, National Association

California Building Industry Association

California Business Properties Association

California Framing Contractors Association

Construction Employers' Association

Flasher Barricade Association

Housing Contractors of California

National Electrical Contractors Association

National Roofing Contractors Association

Northern California Allied Trades

Painting & Decorating Contractors of CA

Roofing Contractors Association of California

Southern California Contractors Association

Southern California Glass Management Association

Union Roofing Contractors

United Contractors

Wall and Ceiling Alliance

Western Electrical Contractors Association

Western Painting & Coatings Contractors Association

Western Wall & Ceiling Contractors Association

**From:** Sharon Hilke
**To:** DIR OSHSB
**Subject:** Lead Standard - Painting and Decorating Contractors of CA - Public Commentary Response 10-25-2023
**Date:** Wednesday, October 25, 2023 2:37:58 PM
**Attachments:** Standards Board - Lead Standard - Painting and Decorating Contractors of CA Comments.pdf
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On behalf of the Painting & Decorating Contractors of California, we wish to thank you for the opportunity to remit our public comments on CalOSHA's proposed Lead Standard. I've attached in PDF and Word files for your convenience.

Please contact me if you have questions.

***Sharon Hilke***
***Executive Director***
PDCC | Painting & Decorating Contractors of California, Inc.
5960 S. Land Park Drive #426 | Sacramento CA 95822
**c: 916.208.9908 | pdcc@calpainters.org**
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Painting & Decorating Contractors of California INC.
*Your Safety Net*

Painting & Decorating Contractors of California INC.
Your Safety Net

October 25, 2023

The Honorable David Thomas, Chair
CalOSHA Standards Board Members

*Sent via public commentary oshsb@dir.ca.gov*

I represent the interests and concerns of the Painting & Decorating Contractors of California. My public comments will address the Lead Standard.

As I stated in my testimony on October 19, the proposed Lead Standard is insufficient in many areas.

**The proposed Standard is incomprehensible.** Attorney Robert Moutrie, representing the California Chamber of Commerce, testified to the Standards Board that it took him 10 hours to read through the proposed Lead Regulation. CalOSHA has an obligation to promulgate regulations that are comprehensible to the regulated Construction community, and CalOSHA has failed to do so.

**Stakeholders were not engaged on any level.** While there was some stakeholder engagement ten years ago, there was absolutely no stakeholder engagement in the current proposed Lead Standard. Nor was there any engagement of experts in the fields of medicine or science. The "Scientific Model" constantly cited by CalOSHA is actually based on a series of "articles" and not on a scientific study of Lead in Construction. For example, the "study" does not provide statistics on the correlation between high lead exposure and those subjects who did not follow the PPE requirements. This is a critical correlation that is missing from the "study."

**There are inadequate resources to ensure compliance and implementation of the proposed Lead Standard.** A CIH is required for one or more of the compliance elements of the Standard Board. There are less than 200 CIH's in the private sector who are available to provide the mandated testing and screening. It takes 5 years to attain a CIH certification, so it isn't feasible that there are, or will be, enough CIH's to provide services to 86,000 construction contractors, as well as those in general industry.

**The SRIA has failed to meet the requirement of the Code of Regulations to calculate all actual costs.**

**The SRIA has failed on many levels and for many reasons, resulting in a SRIA that is significantly inadequate, incomplete, misleading and false. What is most egregious is that the SRIA was written in 2019 and does not include all the mandates that are in the 2023 proposed Lead Standard.** Of note, the October 6, 2023 amendments added a new medical exam requirement that wasn't in the 2019 SRIA or even the March 2023 proposed regulations.

Failures of the SRIA include underestimated costs, the significant underestimation of the number of businesses and employees, unrealistic costs of goods and services, logistics, and personnel hours, and a fundamental lack of understanding of what is actually needed for compliance and implementation.

The SRIA states costs to Large Businesses (100+ employees) in Year 1 will be $10,647, and $8,514 in subsequent years; with costs to Small Businesses (Less than 100 employees) in Year 1 to be $5,989 and $4,837 in second and subsequent years. This is a gross miscalculation. **The Actual cost for each Construction businesses is $46,000 annually, per contractor. The SRIA is incorrect by a factor of 400% for Large Businesses; and 750% for Small Businesses.**

**The SRIA projects costs for Construction to be $86 million in Year 1. The actual projected costs are $3.9 billion. This is an underestimation of $3.8 billion in Year 1.** The SRIA projects costs for all Construction for 10 years to be $862 million. The actual 10-year projected costs for all businesses is $38.5 billion. This is an underestimation of 4400%.

All of these failures and inaccuracies result in a SRIA that does not accurately, or truthfully, reflect the costs of compliance and implementation. **The SRIA provides no evidence of an understanding of what is needed to comply with the mandates of the proposed Lead Standard.**

Using the "Training" Costs as a simple example. There are 50,000 supervisors and 110,000 employees impacted by the proposed Lead Standard. The components of "Training" costs include the Lead Related Construction Supervisor Certification (LRC) 40-hour training, personnel hours, travel and per diem, exam fees and the annual CDPH fee. LRC Supervisors would be tasked with providing comprehensive training to the 110,000 employees and new hires throughout the year, all of which includes significant personnel hours. The employee training would need to be refreshed annually, and the LRC is a biennial renewal program for Supervisors.

**The LRC 40-hour training –not any other associated training costs, JUST the LRC training course – is $38.5 million biennially.** Here's the math: $770 per training course x 50,000 Supervisors = $38.5 million.

**The annual CDPH Certification fee -- not the training, JUST the CDPH fee – is $7.95 million per year**, almost twice the SRIA projection for the entire Training requirement. And because we're not afraid to show our work: $135 CDPH annual fee x 50,000 supervisors = $7.95 million.

**Just these two above-referenced components of the Training mandate are a cost of $46 million. And account for 50% of the SRIA cost projection for the ENTIRE Lead Regulation.**

If these simple and straightforward costs can be underestimated by a factor of 800%, a reasonable person could conclude that the other more complex and costly regulations are also significantly flawed and underestimated.

CalOSHA has asked us, "What's the big deal about the costs?" The obvious answer is that if the costs were an average of $4,900 a year, we wouldn't be alarmed.

CalOSHA suggests that we "pass the costs on to the consumer." We cannot possibly pass on $3.8 billion annually to the clients of 86,000 construction contractors.

**The Lead Standard as written, and with costs grossly underestimated, will put 80% of small construction contractors out of business** and will put hundreds of thousands of employees out of work.

**It will drive the underground economy where workers and their families, as well as consumers, will be less safe from lead…the opposite of what CalOSHA is trying to achieve.**

As contractors, we hear the constant drumbeat that we don't care about the health and safety of our employees and families. This is untrue and is disrespectful to licensed contractors.

**We respectfully ask that you vote NO on the proposed Lead Standard.**

The Lead Standard for Construction should start over. It should begin with a Scientific Study that specifically addresses lead in construction and does not randomly include lead in General Industry. It should report on today's current lead levels established by science and facts. It should include correlations between high lead levels and employees who did not follow current PPE requirements. It should engage stakeholders, as well as medical and scientific experts in the private sector. The SRIA should be based on actual costs of all components of compliance and implementation.

Painting Contractors and other Construction Trade Contractors deserve better than a regulation that is incomprehensible, bereft of an actual Scientific Model, without stakeholder engagement, and with grossly underestimated fiscal impacts.

Thank you for your time and consideration of our concerns.

We would be happy to speak with you or any member of the Standards Board if you have any questions or would like to discuss our concerns.

Sharon Hilke
Executive Director

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**From:** Christy Christensen
**To:** DIR OSHSB
**Cc:** Shupe, Christina@DIR; Berg, Eric@DIR; Eckhardt, Susan@DIR
**Subject:** Coalition Letter on Cal-OSHA Lead Standards
**Date:** Wednesday, October 25, 2023 3:03:13 PM
**Attachments:** image001.png
image002.png
Coalition Lead Comments 102523.pdf

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Good Afternoon –
Please see the attached coalition letter on Cal-OSHA Lead Standards.
Thank you

Christy Christensen
KP PUBLIC AFFAIRS

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October 25, 2023

via email: oshsb@dir.ca.gov

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

**Subject:** **Second 15-Day Package for Notice of Proposed Rulemaking on Construction Safety Orders Section 1532.1 and General Industry Safety Orders Section 5155 and 5198.**

Dear Ms. Money:

The undersigned organizations appreciate this opportunity to comment on Cal/OSHA's update of California's construction and general industry lead standards. We are pleased to see some changes in this second 15-day package that respond to our prior comments on the 45-day notice (April 20, 2023) and the first 15-day notice (July 24, 2023), including a recognition by the Division of Occupational Safety and Health (Division) that additional time is needed to achieve compliance with most of the proposed requirements. However, there are several problems remaining with the proposed standards, including the inadequacy of the 6-month compliance period indicated in the notice[1], which would result either in a flood of variance requests - which Division staff are ill-equipped to manage - or widespread non-compliance, or both.

The following comments address the revised language included in Cal-OSHA's second 15-Day Notice of Proposed Modifications, dated October 6, 2023.

**The Coalition Supports Certain Additional Clarifications and Exceptions**

1. We support Cal/OSHA's proposed clarification in the exception for employee access to potable drinking water (Section 5198 (i)(1)(A)), which will allow employees to temporarily remove respirators to drink water, provided employees are properly trained on safe hydration procedures and water is consumed in a manner that prevents ingestion of lead.

2. We support the additional exception from medical surveillance for any employee not exposed to lead at or above the action level for 15 or more days in any 12 consecutive months, and who is not exposed on any day above 20 µg/$m^3$ (Section 5198 (j)((1)(A)(1)). We agree that employees who are infrequently exposed below the medical removal level are not at risk of elevated blood lead levels and should not be subject to medical surveillance requirements. We further recommend that Cal-OSHA expand the exception for single day exposures to include any employee (or contractor) who uses a respirator, provided the level of exposure is equivalent to or lower than the respirator protection factor.

3. We support the proposed exception from a written elevated blood lead level (BLL) response plan, training, and instruction when the employee's BLL is at or above 10 µg/dl based on a test done prior to first assignment to covered work (Section 5198 (j)(2)(E)). As we indicated in our prior comments, elevated BLLs can result from exposures occurring outside of the workplace, and in those cases employer interventions will have little if any impact on employee BLLs. For the same reason, Cal/OSHA should also clarify that medical removal benefits are required only when: (1) workplace exposures are determined to exceed relevant action levels; and (2) a medical examination by a qualified physician concludes that those workplace exposures are the primary cause of the employee's elevated blood lead level.

[1] Occupational Safety and Health Standards Board, NOTICE OF PROPOSED MODIFICATIONS TO CALIFORNIA CODE OF REGULATIONS TITLE 8: Section 1532.1 of the Construction Safety Orders; and Sections 5155 and 5198 of the General Industry Safety Orders, October 6, 2023, page 1: "In addition to the attached modifications, notice is also given that the Board will request that the effective date of the revised standards be six months after approval by the Office of Administrative Law."

4. We support the proposed exceptions from employee medical examinations and consultations, consistent with the exceptions from medical surveillance in Section 5198 (j)(1)(A)(1) (Section 5198 (j)(3)(2)).

**Cal/OSHA Must Extend the Proposed Six-Month Compliance Period**

We appreciate Cal/OSHA's recognition in this notice that employers will need additional time to comply with the proposed standards. However, the proposed six-month compliance period falls well short of the time that will be needed to procure the resources and regulatory approvals necessary to meet the many new requirements in the proposed standards. Employees will not benefit from an implementation schedule that shifts employer focus from achieving compliance to seeking variances or responding to enforcement actions. We ask that Cal/OSHA staff solicit input on reasonable compliance periods from medical professionals, blood testing laboratories, city planning departments and local air quality management districts, and incorporate these adjustments into the final standards.

**Cal-OSHA Should Remove or Clarify the Newly Proposed Restriction on Vehicle Entry**

The proposed changes establish a new requirement for employers to "ensure" that employees do not enter personal vehicles with "any protective clothing or equipment that is required to be worn during the work shift." (Section 5198 (i)(1)(2)(C)) This change creates a new citable violation for employee actions that employers cannot reasonably control. We recommend that Cal/OSHA either strike this new requirement or modify the language to limit the employer's obligation to employee education and training. For example, this language could be revised to require the employer to "train all employees to remove and leave at the workplace all protective clothing and equipment that is required to be worn during the work shift before employees enter personal vehicles or leave the workplace."

There are several other provisions in the proposed standards requiring employers to "ensure" certain employee actions are either taken or prevented. These provisions create the same compliance catch-22 for employers as the above-noted provision and should either be qualified with supplemental language such as "the employer shall take reasonable steps to ensure" or replaced with language similar to the above proposed alternative approach.

**Cal-OSHA Should Add an Exception for Work in Confined Spaces**

We also ask that the Division reconsider our prior comments regarding the potential adverse impacts of the proposed standards on employees working in enclosed or confined spaces at elevated temperatures. At a minimum, the Division should consider an exception for these employees from air lead standards where medical surveillance demonstrates that employee blood lead levels are below medical removal limits. In these cases, employees are likely at greater risk from heat illness or injury resulting from use of respirators and full body suits than from exposure to small amounts of lead.

We look forward to further changes addressing these, and the balance of the issues raised in our prior comments, before the final standards are adopted.

Sincerely,

Erin Smith, Project Manager
Copper Development Association

Jack Monger, CEO
Industrial Environmental Association

Kerry Stackpole, FASAE CAE, CEO & Executive Director
Plumbing Manufacturers International

Christopher E. Ochoa, Esq., Senior Counsel – Codes, Regulatory and Legislative Affairs
California Building Industry Association

James Simonelli, Executive Director
California Metals Coalition

Matthew Hargrove, President & Chief Executive Officer
California Business Properties Association

Roger Miksad, Executive Vice President and General Counsel
Battery Council International

Doug Kurkul, CEO
American Foundry Society

Mark DeLaquil, General Counsel
Association of Battery Recyclers

Benjamin Erwin, Deputy General Counsel
National Shooting Sports Foundation, Inc.

Lawrence Gayden, Policy Director
California Manufacturers and Technology Association

Andrea Abergel, Manager of Water Policy
California Municipal Utilities Association

Cris Williams, Ph.D., Senior Scientist
International Lead Association

Bryan Leiker, Executive Director
Metal Finishing Association of California

Eric Stuart, Vice President, Energy, Environment, and Infrastructure Policy
Steel Manufacturers Association

Rodney Pierini, President and CEO
CAWA – Representing the Automotive Parts Industry

Lisa Spooner Foshee, SVP, Government Affairs and General Counsel
Auto Care Association

Ryan Allain, Director, Government Affairs
California Retailers Association

cc: David Thomas, Chair, Cal-OSHA Standards Board
Members, Cal-OSHA Standards Board
Christina Shupe, Executive Officer, Cal-OSHA Standards Board
Steve Smith, Cal-OSHA Standards Board
Eric Berg, Division of Occupational Safety and Health
Susan Eckhardt, Division of Occupational Safety and Health

**From:** Tresten Keys
**To:** DIR OSHSB
**Cc:** Brian Mello
**Subject:** 2nd 15-Day Proposed Lead Regulation Comment Letter
**Date:** Wednesday, October 25, 2023 3:35:01 PM
**Attachments:** AGC of California Lead Regulation Comment Letter (2nd 15-day).pdf

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Good Afternoon,

Please see attached AGC of California written comment letter regarding the 2nd 15-Day revision proposed lead regulation. I am sending this letter on behalf of Brian Mello, Vice President of Engagement and Regulatory Affairs. If there are any questions regarding our comments please feel free to reach out at any time.

**Regards,**

**Tresten T. Keys**
**Safety and Regulatory Affairs Manager**
AGC of California
Mobile/Direct: 916.342.4145
keyst@agc-ca.org
www.agc-ca.org

---

**From:** Tresten Keys
**Sent:** Thursday, April 20, 2023 9:57 AM
**To:** DIR OSHSB <oshsb@dir.ca.gov>
**Cc:** Brian Mello <MelloB@agc-ca.org>
**Subject:** Lead Regulation Comments

Good Morning,

Please see attached AGC of California written comment letter regarding the drafted proposed lead regulation. I am sending this letter on behalf of Brian Mello, Vice President of Engagement and Regulatory Affairs. If there are any questions regarding our comments please feel free to reach out at any time.

**Tresten T. Keys**
**Safety and Regulatory Affairs Manager**
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Mobile/Direct: 916.342.4145
keyst@agc-ca.org
www.agc-ca.org

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October 25, 2023

Chair David Thomas and Board Members
Cal/OSHA Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, Ca 95833

***Electronically Submitted:*** oshsb@dir.ca.gov

**Re: Proposed General Industry and Construction Lead Standards**

**Dear Chair Thomas and Members of the Board:**

On behalf of the Associated General Contractors (AGC) of California, we are submitting comments in response to the proposed general industry and construction lead standard. We submit these comments to formally express our concerns with the proposed regulation. While we understand the importance of protecting workers against lead exposure, we want to emphasize the importance of clarity and achievability in the implementation of this regulation to ensure our member companies can comply with the regulation.

AGC of California is a member-driven organization that statewide consists of over 900 companies. Our members provide commercial construction services on a broad range of projects ranging from high rise buildings, tilt-ups, road and bridge work, and port and airport projects. We pride ourselves on being leaders of the industry and within all best practices, safety is always the number one priority.

The 2nd 15-Day notice for Lead introduced several amendments that address some of the concerns we raised in our initial comment letter. These changes include the removal of social security numbers for employee identification (n)(B)(4), the authorization of filtering facepiece respirators for protection against Lead (f)(3)(A), exceptions for feasibility of showers (i)(3)(A), and the inclusion of additional exceptions to alleviate the burden on medical surveillance in section (j). While we appreciate these improvements, we still have remaining concerns about the current state of the proposed regulation.

Outlined Concerns:

- Reduced PEL and AL
- Medical Examinations
- Medical Removal and Financial Implications

AGC CALIFORNIA

**Reduced Permissible Exposure Limit (PEL) and Action Level (AL)**

While we understand that worker safety is of paramount importance, we continue to have concerns regarding the feasibility and practicality of these proposed lower thresholds. The potential impacts on the entire construction industry in California are significant, and we believe it is crucial to ensure that any regulatory changes are well-founded and supported by solid evidence.

In our previous letter, we requested further information and clarification on the necessity of this substantial reduction in the AL and PEL for lead exposure. Specifically, we inquired about the empirical evidence and practical experiences that substantiate this change. After reviewing the supporting documents for the proposal, we remain concerned that Cal/OSHA has not provided sufficient evidence indicating an increased risk of employee occupational exposure to lead in the construction industry. During previous Standards Board meetings, some members of the board, including representatives from our organization, have raised questions and requested more information regarding the basis for these proposed reductions.

It is worth noting that, to date, we have not received additional information or a comprehensive presentation during these meetings to explain the rationale behind these drastic changes. This lack of information has left stakeholders in the construction industry in a state of uncertainty and concern. We urge the board to provide us with a more detailed and evidence-based explanation regarding the extreme reduction in PEL and AL for lead exposure.

**Medical Examinations**

This section concerning the need for a physician's opinion regarding a worker's health-related conditions and their ability to work safely in lead-exposed environments (F)(1) places significant authority and responsibility on physicians to set limitations on workers' lead exposure (K)(B)(1). Unfortunately, this added liability for medical opinions may discourage many physicians from undertaking this work. Consequently, obtaining lead physical examinations is likely to become more challenging due to reduced availability, and the costs associated with these tests are expected to increase.

While an exception has been included, stating that medical examinations are not required for employees who have had a lead-specific examination in the last two months, its impact on reducing the number of workers subjected to medical examinations remains limited. Mandatory medical examinations are still required for individuals (K) who are or may potentially be exposed to lead at or above the action level, and these examinations must be completed before work assignment (j)(3)(A)(2). These exams necessitate a physician's evaluation of 'signs and symptoms commonly associated with lead intoxication,' such as high blood pressure, anxiety, constipation, insomnia, and more (II)(B)(2). These symptoms are prevalent among a significant portion of the workforce, even without lead exposure. The language used in this regulation raises concerns that workers could face work restrictions on lead-exposed projects, even if their current health issues are unrelated to prior lead exposure.

**Medical Removal and Financial Implications**

The proposed medical removal section introduces significant changes, including employer control over medical professionals, workers' compensation, and full wage payment for up to 18 months. While some may perceive this as a positive benefit, it's crucial to emphasize that 18 months of full pay for a union worker isn't equivalent to 40 hours plus overtime. Workers could still suffer financial losses if disqualified due to 'symptoms commonly associated with lead toxicity.'

Simultaneously, as we witness a reduction in the permissible exposure limit and action level, there's a dramatic shift in the threshold for medical removal due to occupational lead exposure. Initially reduced from 50 micrograms to 20 micrograms per deciliter (K)(1)(A)(2), this change is anticipated to significantly increase the number of workers who will be medically removed from their jobs, resulting in a surge in workers' compensation claims.

Another significant concern arising from these substantial reductions in trigger levels is the inability to differentiate between workplace exposure and exposure occurring at home. Under the previous lead standard, trigger levels were set high enough to avoid being triggered by exposures outside of the workplace. The new proposal could drastically change this dynamic, potentially leading to workers who are exposed to lead outside of work being medically removed and consequently preventing them from working in any job involving any level of lead exposure.

**Conclusion**

Considering these concerns, we strongly urge the Standards Board to reconsider and thoroughly evaluate the proposed changes in collaboration with industry stakeholders. We are committed to working together to develop safety standards that prioritize both the well-being of our workers and the sustainability of the construction industry. Transparency, collaboration, and a deep understanding of the practical implications are essential to ensure the best outcomes for all parties involved.

If you have any questions regarding the comments, please contact Tresten Keys, Safety & Regulatory Affairs Manager at (tkeys@agc-ca.org) or Brian Mello, AVP – Engagement & Regulatory Affairs at (mellob@agc-ca.org). We appreciate the opportunity to comment on the draft language and hope that should the board vote to adopt the regulation, that considerations around these concerns be addressed.

Sincerely,

Brian Mello

Brian Mello
Associate Vice President, Engagement Regulatory Affairs
Associated General Contractors of California

AGC CALIFORNIA

**From:** AnaStacia Wright
**To:** DIR OSHSB
**Cc:** Stephen Knight
**Subject:** Worksafe"s Comment Letter on Lead
**Date:** Wednesday, October 25, 2023 3:53:22 PM
**Attachments:** Worksafe"s Lead Standard Comment Letter 2023-10-25.pdf

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Hello,

Please find attached Worksafe's comment letter on Lead.

Best,

AnaStacia Nicol
--
***AnaStacia Nicol Wright***
Policy Manager
(she/her)
(510) 815-3300
**Worksafe**: *Safety, Health, & Justice for Workers*
1736 Franklin St., Ste. 500, Oakland, CA 94612
www.worksafe.org | Twitter | Facebook

*Why include pronouns? I include pronouns in an effort to share my personal and professional commitment to transgender inclusivity and visibility. Through sharing my pronouns, I hope to support a safer and braver space for transgender professionals to share their pronouns.*

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WORKSAFE
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seguridad, salud y justicia para los trabajadores

David Thomas, Chair
Occupational Safety and Health Standards Board
Sacramento, CA
*By email*: oshsb@dir.ca.gov

SUBJECT: SUPPORT Cal/OSHA Lead Standard Update for Workers and Community Health

Dear Chair Thomas and members of the Occupational Safety and Health Standards Board:

I am writing to strongly urge you to vote in favor of the Lead Standard to protect California workers. Cal/OSHA's revised final draft is needed to protect California employees who have occupational exposure to lead.

Cal/OSHA is proposing appropriate airborne concentration levels and exposure periods, required monitoring, and proscribed hygiene and equipment regimes. These proposals are based on overwhelming scientific evidence that low levels of lead cause high blood pressure, kidney disease and brain injury. These important amendments will safeguard the health of workers, by substantially lowering blood lead levels requiring medical exams and temporary removal from exposure, and lowering the permissible air exposure level fivefold.

Employers and business groups are launching continued attacks on science and public health. But this proposal follows the health-based recommendations from the California Department of Public Health made more than ten years ago; it is past time for action to be taken to protect worker health.

Consistent with the precautionary principle, the amendments give guidance to employers to protect workers based on tasks, so we don't need to rely only on air testing. And by approving these amendments, the Board will ensure that workers get medical testing for lead with qualified health care providers, as well as access to clean eating areas and showers.

Implementation of these amendments will reduce the number of employees exposed to harmful amounts of lead, in a wide variety of work settings, and it will also have a positive effect on California's environment. And as noted in the SRIA analysis:

It's not uncommon for an employee's family and other household members to be exposed to elevated levels of lead, after the lead dust is transported into their home. Reducing levels of lead exposure in the workplace, and increasing hygiene measures, would therefore also reduce lead exposure to members of the community including infants, children and women of childbearing age.

WORKSAFE
safety, health, and justice for workers
seguridad, salud y justicia para los trabajadores

Thank you for your attention to this important matter of occupational safety and health.

Sincerely,

AnaStacia Nicol Wright
Policy Manager
Worksafe

**From:** Jeremy Smith
**To:** DIR OSHSB
**Subject:** Lead Regulations Letter
**Date:** Wednesday, October 25, 2023 4:26:05 PM
**Attachments:** Letter to OSHASB - 10.25.23.pdf

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Letter regarding lead exposure regulations.

Thank you...

Jeremy

Jeremy Smith
State Building and Construction Trades Council of California
sbctc.org
916-231-6022
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# State Building and Construction Trades Council of California

CHRIS HANNAN
PRESIDENT

J. TOM BACA
SECRETARY-TREASURER

*Established 1901*
*Chartered By*
BUILDING AND CONSTRUCTION TRADES DEPARTMENT
AFL - CIO


October 23, 2023

Mr. Dave Thomas
Chair, California Occupational Safety and Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

**RE: Proposed Modifications to California Code of Regulations Title 8 Section 1532.1 of the Construction Safety Orders; and Sections 5155 and 5198 of the General Industry Safety Orders**

Dear Chairman Thomas:

On behalf of the State Building and Construction Trades Council of California, I write in strong support of the proposed California Occupational Safety and Health (Cal/OSHA) modifications to TITLE 8: Section 1532.1 of the Construction Safety Orders; and Sections 5155 and 5198 of the General Industry Safety Orders dealing with worker exposure to lead.

The SBCTC represents nearly 500,000 working men and women in the construction industry, including roughly 65,000 enrolled in our state-of-the-art apprenticeship programs around the state. Three quarters of our apprentices are people of color, one in five come from foster care are emancipated youth or come from the criminal justice system and every single one of them is trained during their apprenticeship training journey to be safe on the job. They are trained to report unsafe conditions and to refuse work if they feel their lives are in danger. To use this empowerment, they rely upon state agencies such as Cal/OSHA to enforce the robust worker safety and health regulations and laws that the entire labor movement has fought to enshrine in state law for nearly one hundred years.

As noted in the "Statement of Reasons" for this regulatory proposal, the current standard protecting workers from exposure to lead has relied on epidemiological and medical data about lead toxicity that is over forty years old. We applaud the research and data tracking efforts of the California Department of Public Health (CDPH) that have brought us to this point in the regulatory process. Their important toxicity data updates and studies have shown that the time has come to finally update these standards so that workers are as protected as possible from the devastating health effects of lead exposure. As CDPH notes in their guidance documents, lead poisoning continues to be a major problem in the U.S and continues to be one of the most insidious workplace safety dangers despite decades of government and industry intervention to outlaw and prohibit its use.

While there are many ways a person can be exposed to lead, most adults with harmful lead levels are exposed on the job. It can cause serious and permanent health problems and even low levels of exposure

over years or decades can cause damage. A person ingests lead by breathing it in or swallowing it when lead dust, mist, or fumes are in the air. A worker can also swallow particles of lead if lead gets on their hands, clothing, or face and, most devastatingly, that worker can bring it home on their work clothes and expose their families making them unwitting secondary exposure cases. After exposure to lead, it is absorbed into the bloodstream and then circulates throughout the body. Some of the lead that is absorbed is removed right away by the kidneys into the urine but the lead that is not removed is stored in the body mostly in the bones and may stay there for years. Lead in bone is slowly released back into the bloodstream over time. Because lead is stored in the bones, exposure to even small amounts of lead over a long period of time can be harmful.

Lead exposure can damage the brain, nerves, red blood cells, kidneys, and reproductive systems of men and women. Lead easily crosses the placenta in a pregnant woman and can harm the fetus. Lead can also cause high blood pressure, miscarriage, and other serious health problems and increases the risk of death related to heart disease or stroke. Damage from lead exposure can be permanent. Unfortunately, the use of lead was so widespread decades before it was banned that it is still prevalent in our society. Our members, especially those who are not specially trained to work in the lead removal and mitigation part of our industry but are simply on a jobsite carrying out their portion of a construction project, may not know that they are being exposed to lead and that they need to take measures to protect themselves.

That is why our members and all workers need strong, updated, and industry-recognized regulatory protections in place. The proposed standards I write to you about today will remind employers that they have a critical role in worker health and safety, that they need to take that role seriously, and that when needed Cal/OSHA will be able to step in to remind employers that strong health and safety regulations exist and should be followed.

We applaud you, the Standards' Board staff, and your fellow Board Members for their hard work on this proposed standard and urge you to stand strong with workers and their families in the face of employer opposition and support the proposed amendments to Title 8: Section 1532.1 of the Construction Safety Orders and Sections 5155 and 5198 of the General Industry Safety Orders.

Please do not hesitate to call me if I can provide insight and perspective about our position.

Sincerely,

CHRIS HANNAN
President

CH:bp
opeiu#29/afl-cio

**From:** Christy Christensen
**To:** DIR OSHSB
**Cc:** Berg, Eric@DIR; Eckhardt, Susan@DIR
**Subject:** Comment Letter re: Cal-OSHA Lead Standards
**Date:** Wednesday, October 25, 2023 4:44:27 PM
**Attachments:** image001.png
image002.png
BCI 15 Day Lead Comments 102523.pdf

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Good Afternoon –
Please see the attached comment letter on Cal-OSHA Lead Standards.
Thank you

Christy Christensen
KP PUBLIC AFFAIRS

**O:** 916.448.2162 **D:** 916.498.7760
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October 25, 2023

via email: oshsb@dir.ca.gov

Attn: Sarah Money
Occupational Safety and health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

**RE: October 6, 2023, 15-Day Package for Notice of Proposed Rulemaking – Construction Safety Orders Section 1532.1 and General Industry Safety Orders Section 5155 and 5198.**

Dear Ms. Money:

Battery Council International (BCI) and the Association of Battery Recyclers (ABR) appreciate the opportunity to continue our participation in the California Occupational Safety and Health Standards Board's (Standards Board) review and update of the state's occupational lead standards. BCI and ABR appreciate the California Department of Industrial Relations (DIR), Division Occupational Safety and Health's (Cal/OSHA) in-depth review and consideration of BCI's comments submitted in response to the Notice of Proposed Rulemaking on April 20, 2023, and the first 15-day package on July 21, 2023. In response to this second 15-day package, we offer the following comments.

**Comments on Substantive Changes**

BCI and ABR support the following proposed changes, which we believe will facilitate more consistent compliance with the revised standards.

- Section 5198 (d)(2)(A), page 95

  The undersigned organizations support Cal/OSHA's proposal to delete the prohibition in the previous draft on use of filtering facepiece respirators. We also support the new language in Section 5198 (f)(3)(A) on page 102 providing specifications for acceptable filtering facepiece respirators. However, Cal/OSHA should allow the use of N95, R95, or P95 as the use of those respirators with an assigned protection factor of 10 is appropriate under federal regulations. (29 CFR 1910.134(d)(3)(i)(A))

- Section 5198 Table 1, page 99

  The undersigned organizations support the proposed Separate Engineering Control Airborne Limits (SECALs) for lead battery recycling. We note that the proposed levels are consistent with

the previously proposed SECALs for grid production and small parts casting in battery manufacturing, and believe they adequately address the unique physical and operational constraints of facility-wide air lead control levels in the specified process areas without compromising health protection for employees working in those areas.

- Section 5198 (i)(1)(A), page 106

  The undersigned organizations support the proposed cross reference to Section 5198 (c)(2) in the exception for employee access to potable drinking water, which we believe addresses potential confusion about exposures at a single point in time (when an employee temporarily removes their respirator to drink at a hydration station) relative to continuous exposure over an 8-hour shift. We look forward to further explanation of Cal/OSHA's rationale for this proposed change in the Final Statement of Reasons.

- Section 5198 (j)((1)(A)(1), page 108

  The undersigned organizations support the companion exception (2) from medical surveillance for any employee not exposed to lead at or above the action level (AL) for 15 or more days (in any 12 consecutive months) and who is not exposed on any day above 20 µg/$m^3$. This additional exception appropriately recognizes that exposures above the PEL which occur over a shorter duration (15 days vs. 30 days), do not materially increase health risk to employees, and therefore do not warrant medical surveillance.

  However, we are concerned that the language for the one-day exposure limit is still too restrictive. It is common in many industries for companies to provide access to employees and contractors on a very limited basis (e.g., one day) for both facility inspections and short-term projects such as maintenance or inventory reconciliation.

  The current proposed Exemption 1 and Exemption 2 both would require such employees to be enrolled in medical surveillance based on exposure above a given level of lead in air "without regard to respirator use." This requirement is unnecessarily restrictive for employees who would otherwise only be exposed one day or less in a given year.

  The undersigned organizations recommend that Cal-OSHA modify the proposed exceptions as follows to allow one day facility access without exposure restrictions where the visiting employee uses respiratory protection meeting the requirements of the proposed standards.

  EXCEPTION 1: Medical surveillance is not required for an employee who is not exposed to lead at or above the action level for 30 or more days in any 12 consecutive months, and who is not exposed on any day above 10 µg/m3 as an 8-hour TWA ~~, without regard to respirator use~~ *if the employee does not use a respirator. If an employee uses a respirator, the exposure level may be considered to be equivalent to the level provided by the protection factor of the respirator for those periods when the respirator is worn.*

  EXCEPTION 2: Medical surveillance is not required for an employee who is not exposed to lead at or above the action level for 15 or more days in any 12 consecutive months, and who is not exposed on any day above 20 µg/m3 as an 8-hour TWA ~~, without regard to respirator use~~ *if the employee does not use a respirator. If an employee uses a respirator, the exposure levels are*

*considered to be equivalent to the level provided by the protection factor of the respirator for those periods the respirator is worn.*

- Section (j)(2)(E), page 111

  BCI and ABR support the proposed exception from a written elevated blood lead level (BLL) response plan, training, and instruction when the employee's BLL is at or above 10 µg/dl based on a test done prior to first assignment to covered work. This new exception acknowledges that elevated BLLs can be driven by factors outside of the workplace, and in those cases it is the responsibility of the employee, not the employer, to mitigate their exposure to lead. This same rationale applies to the proposed requirements for medical removal and provision of medical removal benefits to employees.

  **BCI reiterates our prior requests that Cal/OSHA further revise the proposed standards to limit the employer's obligations related to medical removal and provision of medical removal benefits to instances where a qualified physician determines that the employee's elevated BLL is due to workplace exposures.**

- Section (j)(3)(2), page 111

  The undersigned organizations support the proposed exceptions from employee medical examinations and consultations, which appropriately mirror the exceptions from medical surveillance in Section 5198 (j)(1)(A)(1).

**Proposed Restriction on Entering Personal Vehicles**

The proposed regulations continue to place liability on the employer for failing to "ensure" that employees either take, or refrain from taking, various actions. Cal-OSHA's repeated use of the word "ensure" in this and other contexts creates a very real compliance impasse for employers, as employers cannot physically restrain employees or physically force them to take specific actions.

Federal OSHA has recognized this reality for more than thirty-five years. For example, OSHA recognizes that employers cannot force an employee to consent to invasive medical procedures such as blood draws, and an employer cannot be held liable for an employee's refusal to cooperate with blood lead testing.[1]

The same considerations apply here. For example, new language in Section 5198 (i)(1)(2)(C) on page 107 establish a new requirement for employers to *"ensure"* that employees do not enter personal vehicles with *"any protective clothing or equipment that is required to be worn during the work shift."* However, for an employer to "ensure" that it is compliant with the regulations, the employer would be required to physically restrain any employee attempting to leave the facility while wearing employer-issued protective clothing or equipment. We do not believe this is Cal/OSHA's intention.

To address this concern, Cal/OSHA should replace the word "ensure" with the word "require" throughout the draft rule in any instance where the subject action is taken (or not taken) by an

[1] https://www.osha.gov/laws-regs/standardinterpretations/1983-06-14

individual employee. The undersigned organizations have identified the below provisions as particularly problematic in the General Industry standard, and others likely exist in the proposed regulations:

- 5198 (g)(1)(A) The employer shall provide at no cost to the employee and ~~ensure~~ *require* that the employee uses appropriate protective work clothing and equipment.
- 5198 (g)(2)(D) The employer shall ~~ensure~~ *require* that all protective clothing is removed at the completion of a work shift and only in change rooms provided for that purpose as prescribed in subsection (i)(2).
- 5198 (i)(1)(A) The employer shall ~~ensure~~ *require* that in areas where employees…
- 5198 (i)(1)(A) (EXCEPTION) …. provide training on and ~~ensure~~ *require* compliance with written safe hydration procedures.
- 5198 (i)(1)( (D) The employer shall ~~ensure~~ *require* that employees exposed to lead wash their hands, exposed arms, and face prior to entering eating areas, eating, drinking, smoking or applying cosmetics, and at the end of their shift
- 5198 (i)(2)(C) The employer shall ~~ensure~~ *require* that employees do not enter personal vehicles or leave the workplace with any protective clothing or equipment that is required to be worn during the work shift.
- 5198 (i)(3)(A) The employer shall ~~ensure~~ *require* that employees who work in areas where their exposure to airborne lead is above the PEL, without regard to the use of respirators, shower at the end of the work shift. [2]
- 5198 (i)(4)(C) The employer shall ~~ensure~~ *require* that employees do not enter lunchroom facilities with protective work clothing …

Similarly, various provisions require employers to "ensure" that the physician or other licensed health care professional (PLHCP) conducts specific actions. Again, the employer cannot physically control the actions taken by an independent licensed professional, and should not be held liable for potential mistakes or failures by a licensed professional. Further, because the PLHCP is subject to professional licensing obligations, and is not an employee of the employer, it is not plausible for an employer to "ensure" or even "require" an independent PLCHCP to take specific actions, and thus the employer should not be held liable for such failures. At most, an employer can merely instruct these independent health care providers on their regulatory obligations.

For example, Section 5198 (j)(4)(C) should be amended to read: "PLHCP's Notification to the Employee. The employer shall ~~ensure that~~ *instruct* the PLHCP who orders the blood test *to* explain~~s~~ the findings of the blood lead test and notify the employee of the following…"

As explained above, the prolific use of the word "ensure" throughout the proposed regulations to describe obligations of employers creates unnecessary ambiguity and compliance obligations that may prove impossible for an employer to implement.

[2] The word "ensure" could also be read to imply an obligation not just to require employee showering, but to be physically present to force a non-compliant worker to shower. This further implies that an employer would be out of compliance in a situation where the worker does in fact shower, but the employer was not present to observe and "ensure" the showering occurred. BCI and ABR do not believe these personal privacy invasions are Cal/OSHA's intention, further illustrating the need to use a different word.

BCI and ABR strongly recommend that Cal OSHA review every use of the word "ensure" throughout the draft document and replace it with more appropriate terminology where necessary to avoid establishing compliance obligations that are impossible to legally implement.[3]

**Six Month Compliance Period**

The October 6, 2023, 15-day notice also states that *"the Board will request that the effective date of the revised standards be six months after approval by the Office of Administrative Law."* While a six-month compliance period is a modest improvement over immediate compliance upon publication of the final standards by the Secretary of State, it will not be sufficient for the many reasons articulated in our comments on the July 7, 2023, 15-day notice and the March 3, 2023, Notice of Proposed Regulations. As we detailed in those submissions, the many actions and regulatory approvals necessary to upgrade facility airflow and emissions controls to comply with the proposed PEL on a facility-wide basis will require a minimum of 30 months from the effective date of the regulation. Anything short of that timeframe virtually guarantees that industrial facilities will violate the standards and face enforcement actions and penalties, regardless of their diligence and the level of effort and resources they invest in compliance.

**We ask that Cal/OSHA staff consult with city planning departments and with local air quality management districts to clarify the types of upgrades that will be necessary for affected facilities to comply with the proposed PEL on a facility-wide basis, and the approximate timeframes for permitting those upgrades given available agency resources, and adjust the timeframe for PEL implementation accordingly.**

**Proposed Changes to Appendix A**

BCI and ABR support the comments submitted by the International Lead Association (ILA) regarding the proposed changes to Appendix A (Substance Data Sheet for Occupational Exposure to Lead) and Appendix C (Medical Surveillance Requirements). There are numerous statements in these appendices that require further clarification to avoid misinterpretation and conclusions that are not supported by the available scientific evidence, including but not limited to the following:

- Not all lead is absorbed by inhalation and ingestion, and not all lead is absorbed into the bloodstream.
- References to lower doses or higher doses should be quantified.
- Any statements about the potential health effects of lead exposure should be qualified with language specifying that such effects are dose or blood lead-concentration-dependent. Similarly, generic references to "lead exposure," "exposure to lead," "maternal lead exposure," and "lead may impair" in conjunction with statements about adverse health effects inappropriately imply that such effects can result from *any* exposure to lead, which contradicts published literature cited in the ILA comments establishing thresholds for certain adverse effects.

[3] In the case that Cal/OSHA does not see fit to replace "ensure" with "require," we suggest Cal/OSHA revise certain employer-related obligations to require the employer to "take reasonable steps to ensure" or "reasonably ensure" to make clear that there are boundaries to the employer's obligation, including laws that preclude the employer from physically restraining an employee. This language is used elsewhere in the CA Labor Code (*See, e.g.*, Cal. Labor Code §226(b)).

- Statements about the probability of reproductive effects and "health damage" at specified concentrations (e.g., BLL > 3.5 µg/dl and BLL > 5 µg/dl) contradict the available literature specified in the ILA comments.
- References to "current evidence" are non-specific and should be supported by citations in the scientific literature.
- Cal-OSHA relies heavily on Lanphear et al. (2018) to support several claims despite the many limitations of this study, including the non-representativeness of the NHANES source data and fundamental study design flaws detailed in the ILA comments.
- Failure to acknowledge the reversibility of neurological effects in workers attributed to lead exposure.

**Conclusion**

These comments and our proposed additional changes are intended to facilitate consistent interpretation by both Cal-OSHA and the regulated community and compliance with the proposed regulations, considering the practical realities of affected workplaces. They do not alter the requirements to achieve the lower BLLs proposed in the revised lead standards, and therefore will not compromise the public health protection objectives of the revised lead standards. We look forward to further changes addressing the above issues and our prior comments before the Cal-OSHA Standards Board adopts final standards.

Sincerely,

Roger Miksad
President and Executive Director
Battery Council International

Mark DeLaquil
Counsel
Association of Battery Recyclers

cc: David Thomas, Chair, Cal-OSHA Standards Board
Members, Cal-OSHA Standards Board
Christina Shupe, Executive Officer, Cal-OSHA Standards Board
Steve Smith, Cal-OSHA Standards Board
Eric Berg, Division of Occupational Safety and Health
Susan Eckhardt, Division of Occupational Safety and Health

| | |
|---|---|
| **From:** | Helen Cleary |
| **To:** | DIR OSHSB |
| **Cc:** | Gonzalez, Autumn@DIR; Neidhardt, Amalia@DIR; Hagen, Katie@DIR; Killip, Jeff@DIR; Berg, Eric@DIR; Eckhardt, Susan@DIR |
| **Subject:** | PRR Comments: 2nd 15-Day Notice-Lead Amendments |
| **Date:** | Wednesday, October 25, 2023 4:47:09 PM |
| **Attachments:** | PRR Comments_OSHSB_2nd 15 Day Notice_Lead_Oct 25 2023.pdf |

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

Hello Board Members and Staff,

Please accept the attached written comments in response to the California OSH Standards Board's 2nd 15-Day Notice of Proposed Modifications to the Lead Standards in General Industry and Construction.

We appreciate your consideration.

Have a great evening!

Helen

Helen Cleary
Director
Phylmar Regulatory Roundtable, PRR-OSH Forum
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October 25, 2023

State of California
Department of Industrial Relations
Occupational Safety and Health Standards Board
2520 Ventura Oaks Way, Suite 350
Sacramento, CA 95833
OSHSB@dir.ca.gov

**RE: Proposed 2nd 15-Day Modifications to Title 8 Lead Standards (§1532.1; §5155; §5198)**

Board Chair Thomas and Board Members:

Please accept these comments and recommendations from the **Phylmar Regulatory Roundtable (PRR) Occupational Safety and Health, OSH Forum** in response to the California Occupational Safety and Health Standards Board's (Board or OSHSB) 2nd 15-Day Notice of Proposed Modifications (2nd 15-Day Notice) to the Lead Standards in Title 8: Sections §1532.1 of the Construction Safety Orders (CSO); and §5155 and §5198, of the General Industry Safety Orders (GISO), published on October 6, 2023.

PRR members appreciate the Board and the California Division of Occupational Safety and Health (Division) for issuing a second set of modifications to the proposed amendments to the lead standards for General Industry (GISO) and Construction (CSO), originally noticed in March 2023. While we support many of the proposed changes, we do not believe the changes effectively address or mitigate the overall, significant concerns PRR members, and industry, have with this rulemaking. Please note these comments do not address all PRR's concerns with the proposed amendments to the lead GISO and CSO.

**Proposed Modifications in 2nd 15-Day Notice**

GISO §5198 (f)(3)(A); CSO §1532.1 (f)(3)(A) - PRR appreciates the addition that allows employers to select filtering facepiece respirators; this is an effective option that will benefit the worker during hot weather.

GISO §5198 (g)(1)(B)(2.)(3.); CSO §1532.1 (g)(1)(B)(C) - In comments submitted to the Board on April 19, 2023, and at the Public Hearing on April 20, 2023, PRR highlighted that blanket

protective clothing and equipment requirements created concern. We appreciate and support the added flexibility regarding the required use of "…gloves, face shields, vented goggles, or other protective equipment…" in the 2nd 15-Day Notice. This is an appropriate change that will support the employer's ability to determine when specific protective work clothing is needed.

CSO §1532.1 (i)(3)(A) - The additional language regarding the need for showers in §1532.1(i)(3)(A) is greatly appreciated by PRR members subject to the construction standard. PRR previously expressed significant concern on this issue. We supported the feasibility consideration included in the first 15-Day Notice of Modifications published on July 7, 2023, and provided additional clarification why the requirement for showers was overly burdensome and incomparable to shower requirements in other standards. The added trigger of 50 µg/m$^3$ is a reasonable threshold and provides clarity that was needed by industry.

GISO §5198 (j)(1)(A)1.; (j)(3)(A)2.; CSO §1532.1 (j)(1)(A)1.; (j)(1)(B)1. - The added exceptions for initial blood lead testing, medical surveillance, and medical exams and consultations, are greatly appreciated by PRR members. The added value (20 µg/m$^3$) and number of days (15) above the action level sets clear expectations and considers infrequent and low levels of exposure. This was a significant concern for PRR members and we believe this reasonable modification indicates the Division understands industry's operational challenges.

GISO §5198 (j)(2)(E)2.; CSO §1532.1 (j)(2)(E)2. - PRR members who manage Lead Management Programs have not experienced receiving blood lead testing results above 10 µg/m$^3$ from new employees. This change does not add value or flexibility to their programs.

GISO §5198; CSO §1532.1 Appendix A and B (Appendices) - There are a myriad of changes in the Appendices published in the 2nd 15-Day Notice that go beyond mirroring the proposed changes in the actual text. The decision and strategy to include such a large number of changes (we stopped counting at 80) would have been more appropriate in the original proposal that allowed stakeholders 45 days to review and submit comments. Though some are minor with no technical impact, many are scientific explanations including information in charts that are intended to clarify requirements and help manage lead programs. Ensuring accuracy and providing feedback on clarity are benefits of stakeholder review and comment. Allowing 15 days to review the sheer number of changes in the Appendices is simply not enough time.

While the Appendices are not intended to create additional obligations or be "mandatory" as the Division explained at the October 19, 2023, Board meeting, the employer is required to "…inform employees with occupational exposure to lead of the content of Appendices A and B of this regulation" (§5198 (l)(1)(A)) and include "The content of this standard and its

appendices" as part of the *required training program* (§1532.1 (l)(2)(A); §5198 (l)(1)(F)1.). Both standards also require the employer ensure the training is effective (§1532.1 (l)(2); §5198 (l)(1)(F)) and ensure "…any training materials used, is appropriate to the educational level, literacy level, and language of employees" (§1532.1 (l)(1)(D); §5198 (l)(1)(D)).

PRR is highly disappointed with the Division's seeming disregard that the content and length of the Appendices' are a valid employer concern. In our experience, requiring employers to inform and effectively train content inherently places an obligation of understanding and clear communication on the employer. In the case of the Appendices, the content includes a vast scope of medical, scientific, and procedural elements. This burden is significant and the requirements to inform and training, as *part of a training program*, seems to make this information *mandatory* for the employer.

In addition, the responsibility to ensure that training materials, including the dense Appendices, meet the needs of employees of all education and literacy levels and languages is a tremendous responsibility and enormous administrative burden. As we have continually pointed out, the lowered Action Level (AL) and Permissible Exposure Limit (PEL), in addition to the annual training requirement for all employees "occupationally exposed to lead," greatly expands the scope of workers impacted by the current lead standards. These are primary reasons PRR, and industry stakeholders are concerned about the additional 50+ pages of complexity the Appendices add to each of the standards.

If it is not the intent of the Division for the Appendices to be a burden on the employer, PRR urges the Agency to draft training materials in the education and literacy levels, and languages that will meet the compliance requirements *prior to these changes becoming effective*.

**Complexity**

There has been significant concern raised and recent discussion by the Board around the proposed amendments complexity. While we agree that lead exposure is a complex issue and requires a level of expertise to effectively manage the hazard, PRR believes that the *drafted language and construction of the text,* itself, is confusing and unnecessarily complicated.

The 80% reduction of the AL and 93% reduction of the PEL expands the scope to include a significantly higher number of workers and employers in the State that do not have the expertise to manage such requirements. This is illustrated by the current experts expressing concern and confusion at the Public Hearing and recent Board meetings. In addition, the amendment strategy to simply replace references to the PEL and AL in the rule without revising

the structure and associated requirements these textual changes would impact was a flawed approach.

Request to the Board and Division

Stakeholders look to Board members as experts in workplace health and safety; each Board member has a diverse perspective and experience that is relied upon to pass effective occupational safety and health regulations that are clear and actionable. As the authoritative body, PRR urges the Board to address the complexity of the proposed text.

As an internal measure of acceptability, Board members and staff involved in the drafting of these amendments, prior to signing off or adopting, should be confident that both industry experts and laypeople impacted by these changes will be able to understand and implement the elements *as required in the proposed text.*

**Remaining Overall Issues with the Proposed Text -** The following are high-level overviews of remaining issues with the proposed amendments. We do not believe these issues can be rectified in FAQs or guidance documents; they require textual changes. For full details we refer the Board to PRR's previously submitted written comments, testimony, and public comments at multiple Board meetings.

1. The lack of a definition of "occupational exposure"
   The vague and broad use of "occupational exposure to lead" and subsequent employer requirements combined with the lowered AL unnecessarily expands the scope. This not only makes it near impossible to identify who is and is not covered, it also makes the amendments unreasonable. To clarify and ensure these rules are necessary and will be appropriately applied, a definition of occupational exposure is needed.

   The impact of not having a definition is demonstrated in §5198 (l)(1)(B)(C) and §1532.1 (l)(1)(B)(C) Communication of hazards. The vague trigger of "occupationally exposed to lead" does not consider a threshold and implies that *any* exposure, without consideration to duration or dose, reaches a level of risk necessary to require California employers to create, monitor, and manage ongoing training. This training requirement has indirectly created an additional exposure level (below the proposed AL of 2 $\mu m/m^3$) that employers will be required to manage. This was an unjustified change in the first 15-Day Notice which will create significant administrative and financial burdens that were not considered in the Standardized Regulatory Impact Assessment (SRIA).

Exposures below the proposed AL of 2µg/m$^3$ should not be considered "occupational exposure" and should not trigger initial and annual training. This is an unreasonable and unnecessary expectation. "Occupational exposure to lead" should be clearly defined in the regulation by a threshold.

2. Frequency of Exposure
   A duration and frequency threshold needs to be included in the CSO lead standard. Exemptions for interim protections and pre-exposure assessments should be based on frequency and duration of exposure and not just in response to a trigger task.

3. Time to Implement
   In addition to the one-year time extension from the effective date for change rooms, showers, and lunchrooms in the GISO, we request at least a one-year extension for the pre-exposure assessments to be completed for employers subject to the CSO and GISO. This time will help employers collect, perform, and assess the necessary data required to comply with these amendments.

4. Accuracy of Measurement Requirements
   PRR is not aware of a NIOSH Analytical Method that can meet the accuracy requirements in §1532.1 (d)(9). PRR requests the Division, prior to submitting a final draft for approval, specify which NIOSH analysis methods are acceptable and *capable* of detection below the required limit of 2 µg/m$^3$. The textual requirement must be technically feasible.

   In addition, because these methods are not currently available, once the Division determines and shares the acceptable method with employers additional time to collect samples and perform assessments, using these new analysis methods needs to be included in the proposed text. PRR requests at least one year.

5. Respiratory Protection
   The requirement for the employer to "…provide a powered air-purifying respirator [PAPR] in lieu of the respirator whenever…" "…an employee chooses to use this type of respirator" (§5198; §1532.1 (f)(3)(B)) is unreasonable due to the cost and fact that a less expensive and equally effective alternative is available. Employer provided PAPRs should only be required if an employee is medically unable to wear a tight-fitting air-purifying respirator (APR), but can safely use a PAPR.

In addition, Appendix B states "the standard requires that your employer must provide you with a PAPR upon request." This is misleading and implies employees can have a PAPR regardless of whether they are required to wear a respirator, as required in subsection (f) of the standards.

6. Environmental Exposure for Low-Risk Activities
   PRR recommends the Division allow employers to implement work-related methods to mitigate potential exposures from incidental exposure from altering and disturbing lead during low-risk activities in lieu of the entire suite of requirements. For example, environmental exposure from short duration work in California soil contaminated with Aerially Deposited Lead (ADL) needs to be considered in this proposal and should not require unreasonable interim protections and infeasible pre-exposure assessments.

7. Training Requirements
   PRR members continue to be concerned with the annual training requirement for employees who fall under the broad definition of "occupationally exposed to lead," and the requirement to train information in the Appendices. (§5198(l)(1)(A)(B) and §1532.1 (l)(1)(B); (2)(A)). These are unjustified burdens and expectations. In addition, annual training for all workers exposed below the AL (which would include de minimis, unquantifiable, and undefined quantities of lead) will be extremely costly and was not considered in the SRIA. At a maximum, employers should be required to *provide information,* not training, to this population of workers once they are accurately identified.

8. Portable (Table Top) Fume Extractors
   PRR requests clarification and an exemption regarding the use of Portable Table Top Fume Extractors for hand soldering from the compliance requirements in §5198 (e)(3)(B) for the following reasons.

   a. The technology for a control to "monitor the concentration of lead in the return air…" does not exist. This fact applies to all portable and non-portable fume extractors as well as mechanical ventilation in general. Some units offer a Filter Replacement Notification Function, however, that is not equivalent to monitoring the concentration of lead.

      The U.S. Environmental Protection Agency (EPA), in its *Air Monitoring for Hazardous Materials 165.4* document states: "For specific analysis of aerosols (e.g., lead) there are no direct reading instruments. A sample must be collected and then analyzed by

a non-portable instrument." This usually takes a minimum of 5 days. An X-Ray Fluorescence Analyzer (XRF instrument) is the only technology available that provides a direct reading of lead and provides concentrations of lead in paint or other substrates; however, this is not a control, it is extremely cost prohibitive, and not available or feasible for the application of hand soldering.

b. PRR is unable to identify a portable fume extractor on the market with a "…back-up filter…" as required by the text. However, a prefilter and a HEPA filter is not uncommon.

c. Portable fume extractors have the capability to turn off and prevent the recirculation of exhaust air if the filter becomes saturated. Also, if they have surpassed their specified filter replacement schedule they will cease to operate.

d. PRR members have monitoring data demonstrating *Portable (Table Top) Fume Extractors* equipped with HEPA filters are efficient at ensuring employees are not over exposed to lead when performing lead soldering. Visual observations and sampling results of lead soldering operations find that engineering controls provide sufficient protection during soldering tasks and all personal sample results were below the detection limit.

e. Not exempting bench top local exhaust equipment for hand soldering will have significant impact on a considerable number of operations across the State and the cost to provide the required protection in the text was not considered in the SRIA.

**Summary**

Despite PRR's support and appreciation for revisions proposed in the 2nd 15-Day Notice, significant textual issues remain in both standards that need to be addressed before the Division submits a final draft for approval.

PRR continues to support and understand the scientific reasoning behind lowering the AL and PEL, and the goal to reduce the blood lead burden on workers. However, as expressed at the October 19, 2023, Board meeting, PRR would like to understand how the Division determined such low triggers *combined with the suite of employer requirements* would meet the proposed blood lead burden. We are also interested in learning about the limitations and uncertainties in the scientific modeling.

We look forward to the Division responding to Board member requests at the October 19, 2023, Board meeting to provide additional context and justification for the proposed exposure limits and additional requirements in the amendments.

Thank you for your consideration.

Sincerely,

Helen Cleary
Director
PRR OSH Forum

CC:

| | |
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*PRR is a member-driven group of 37 companies and utilities, 19 of which rank amongst the Fortune 500. Combined, PRR members employ more than 1.7 million American workers and have annual revenues in excess of $1 trillion. Individual PRR members are Environmental Health and Safety (EHS) professionals committed to continuously improving workplace safety and health. PRR provides informal benchmarking and networking opportunities to share best practices for protecting employees. In addition, members work together during the rulemaking process to develop recommendations to federal and state occupational safety and health agencies for effective workplace regulatory requirements. These comments and recommendations are based on the experience and expertise of PRR members, many of which are Certified Industrial Hygienists (CIH). However, the opinions expressed in them are those of PRR and may differ from beliefs and comments of individual PRR members.*

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10/19/23

ASSOCIATED ROOFING CONTRACTORS OF THE BAY AREA COUNTIES, INC.

P.O. Box 5067, Concord, CA 94524
Telephone: (925) 472-8880 Fax: (925) 472-0258
Website: www.arcbac.org E-Mail: admin@arcbac.org

**October 19, 2023, Cal/OSHA Standards Board Meeting, Walnut Creek, CA.**

Public testimony provided by Steven Johnson, OHST, SMS, Safety Director for Associated Roofing Contractors of the Bay Area Counties.

Re: Lead Regulation Revision – 10/6/23 2nd 15-Day Notice.

The three most important things about real estate are: "Location, Location, Location!"

The three most important things to understand about Cal/OSHA's changes to the lead in construction regulation are: "Haven't proven a need, Haven't proven a need, Haven't proven a need!"

- Quoting from Page 6 of the 2008 to 2011 CDPH Data, "For the vast majority of BLL Reports (80%) we do not know the employer. This greatly hinders our ability to determine whether lead is work related and identify employers where lead is a problem. In the future, we hope to improve reporting regulations so that labs are required to report employer information to CDPH for **ALL** blood tests".
- Page 13 revealed that less than 1% of workers tested with reported results to CDPH/OLPPP for elevated BLL worked in construction.
- Page 14 shows that half of the elevated BLL test results reported were "Unknown Industry".

**This is the data relied upon for requiring a change?**

The construction industry will be required to train employees in an already complicated regulation that will be made even more complex.

For example, 1532.1(L)Communication of hazards. Cal/OSHA added new language meant to clarify Housekeeping and Hygiene requirements. It doesn't. Instead, it is a citation trap for employers. This new language was added without an advisory meeting. Employers are required to provide "Effective" training on 179 pages of regulatory language that is written like the IRS Tax Code. And when employees don't understand what they have been trained on and what they are required to do, the employer gets a citation for **"ineffective training!"**

The revisions to the 2nd 15-Day Notice do NOT help employers, in fact, the very employers charged with compliance are being punished.

- Changes to the unrealistically lowered Action Level (AL) and Permissible Exposure Limit (PEL) for Lead will bring in new "trigger tasks – not listed" (1532.1(d)) that will require the employer to "presume" employee exposure above the PEL and conduct exposure assessments for lead work that is not defined in the regulation.
- "Interim protection" for infrequent trigger tasks under this new definition will require medical surveillance (employee physical exams) and for employees to undergo pre-exposure blood lead level (BLL) testing before the project begins.
- Additionally, until an exposure assessment can prove that the lead work is below the Action Level, employees will be subjected to four BLL tests in the first six months.
- Employees' personal information (home address and phone number) and medical data for medical surveillance and BLL testing will be reported to the California Department of Public Health by the health care provider.

All the above concerns make Union Employers less competitive to "Low-Bid" employers who will **NEVER** comply with regulations. These regulation revisions strengthen the underground economy in California, weaken employers' ability to hire and maintain a trained and skilled workforce, puts a burden on Cal/OSHA Enforcement with a complicated regulation, and subjects employees to unnecessary blood lead level testing and intrudes on their personal lives.

# Occupational Safety and Health Standards Board

## Business Meeting
## Petition 599

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

| | | |
|---|---|---|
| In the Matter of a Petition by: | ) | |
| | ) | **PETITION FILE NO. 599** |
| Tanya Charlesworth | ) | |
| Director of Product Management | ) | |
| Brand Safway | ) | |
| 700 Commercial Ave. | ) | |
| Carlstadt, NJ 07072 | ) | |
| | ) | |
| | ) | |
| Applicant. | ) | |

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

OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD

DAVID THOMAS, Chairman

JOSEPH M. ALIOTO JR., Member

KATHLEEN CRAWFORD, Member

DAVE HARRISON, Member

NOLA KENNEDY, Member

CHRIS LASZCZ-DAVIS, Member

LAURA STOCK, Member

By: _____

Autumn Gonzalez, Chief Counsel

DATE: February 15, 2024
Attachments

# PETITION NO. 599

To amend Title 8, Article 14. Construction Safety Orders (CSO), sections 1604 Personnel Hoists and 1604.21 Capacity and Loading, to adopt the ANSI 10.4-2016 standards and allow for a modification to Table 4 (section 1604.21) “Relationship of Hoist Rated Capacity to Inside Net Platform Area”, specifically the section “Rated Load” to “Inside Net Platform Area” so that the square feet/area related to the inside net platform can be increased when the hoist car is equipped with an overload detection device and the rated load to inside net platform area is 82psf or higher.

## HYPERLINKS TO PETITION NO. 599 DOCUMENTS:

**PROPOSED PETITION DECISION**

**BOARD STAFF EVALUATION**

**CAL/OSHA EVALUATION**

**ORIGINAL PETITION (RECEIVED 09/26/2023)**

# Occupational Safety and Health Standards Board

## Business Meeting

## Proposed Variance Decisions

**CONSENT CALENDAR—PROPOSED VARIANCE DECISIONS**
**FEBRUARY 15, 2024, MONTHLY BUSINESS MEETING**
**OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

**PROPOSED DECISIONS FOR BOARD CONSIDERATION, HEARD ON January 24, 2024**

| Docket Number | Applicant Name | Safety Order(s) at Issue | Proposed Decision Recommendation |
|---|---|---|---|
| 1. 21-V-452M1 | Lawrence Berkeley National Laboratory | Elevator | GRANT |
| 2. 23-V-369M1 | Niima Outpost LLC | Elevator | GRANT |
| 3. 23-V-544 | Linc - Core Pioneer LP | Elevator | GRANT |
| 4. 23-V-545 | Linc - Core Pioneer LP | Elevator | GRANT |
| 5. 23-V-546 | Linc - Core Pioneer LP | Elevator | GRANT |
| 6. 23-V-547 | 2111 Firestone, LP | Elevator | GRANT |
| 7. 23-V-548 | Sterling City Science South Development, LLC | Elevator | GRANT |
| 8. 23-V-549 | Sterling City Science South Development, LLC | Elevator | GRANT |
| 9. 23-V-550 | Sterling City Science South Development, LLC | Elevator | GRANT |
| 10. 23-V-551 | Crocker Apartments, L.P. | Elevator | GRANT |
| 11. 23-V-552 | Parkview Affordable Housing LP | Elevator | GRANT |
| 12. 23-V-553 | California State University, Chico | Elevator | GRANT |
| 13. 23-V-554 | San Diego Naranja Associates, a CLP | Elevator | GRANT |
| 14. 23-V-557 | 16411 Bellflower LLC | Elevator | GRANT |
| 15. 23-V-558 | LB Stone Properties Group | Elevator | GRANT |
| 16. 23-V-559 | Riverpark Apartments Owner, LLC | Elevator | GRANT |
| 17. 23-V-560 | City of San Diego Parks and Recreation Civic San Diego | Elevator | GRANT |
| 18. 23-V-561 | Topgolf USA Burlingame, LLC | Elevator | GRANT |

| Docket Number | Applicant Name | Safety Order(s) at Issue | Proposed Decision Recommendation |
|---|---|---|---|
| 19. 23-V-562 | Lund Construction Co | Elevator | GRANT |
| 20. 23-V-563 | Phoenix 801 Pine LP | Elevator | GRANT |
| 21. 23-V-564 | 350 Palm Development LLC | Elevator | GRANT |
| 22. 23-V-565 | LL Hospitality, LLC | Elevator | GRANT |
| 23. 23-V-566 | Neo Investment Group, LLC | Elevator | GRANT |
| 24. 23-V-567 | GB Towers, LLC | Elevator | GRANT |
| 25. 23-V-568 | Messina CIC LP | Elevator | GRANT |
| 26. 23-V-569 | Taormina Family Apartments CIC LP | Elevator | GRANT |
| 27. 23-V-570 | Modica Family Apartments CIC LP | Elevator | GRANT |
| 28. 23-V-571 | 552 El Camino Estates LLC | Elevator | GRANT |
| 29. 23-V-572 | County of Santa Clara | Elevator | GRANT |
| 30. 23-V-573 | Barry60 LP | Elevator | GRANT |
| 31. 23-V-574 | Thomas Safran & Associates | Elevator | GRANT |
| 32. 23-V-575 | PTI US Towers II, LLC | Elevator | GRANT |
| 33. 23-V-576 | Creek Street Partners LLC | Elevator | GRANT |
| 34. 23-V-577 | W4 Apartments, LLC | Elevator | GRANT |
| 35. 23-V-578 | 1911 New England LA, LLC | Elevator | GRANT |
| 36. 23-V-579 | Onni Broadway Hill Development LP | Elevator | GRANT |
| 37. 23-V-581 | Los Angeles Community College District | Elevator | GRANT |
| 38. 23-V-582 | Orange Unified School District | Elevator | GRANT |
| 39. 23-V-583 | Uno Tre Otto | Elevator | GRANT |
| 40. 23-V-584 | Zoe Church | Elevator | GRANT |
| 41. 23-V-585 | The Retail Property Trust, a Massachusetts business trust | Elevator | GRANT |
| 42. 23-V-586 | Iris at San Ysidro L.P. | Elevator | GRANT |

| Docket Number | Applicant Name | Safety Order(s) at Issue | Proposed Decision Recommendation |
|---|---|---|---|
| 43. 23-V-587 | 500 San Benito LLC | Elevator | GRANT |
| 44. 23-V-588 | Family Health Centers of San Diego, Inc. | Elevator | GRANT |
| 45. 23-V-589 | Sorrento Heights, LLC | Elevator | GRANT |
| 46. 23-V-590 | Sorrento Heights West, LLC | Elevator | GRANT |
| 47. 23-V-591 | California Baptist University | Elevator | GRANT |
| 48. 23-V-592 | Olive Knolls Church of the Nazarene | Elevator | GRANT |
| 49. 23-V-593 | Desert Community College District | Elevator | GRANT |
| 50. 23-V-594 | UC Davis Health | Elevator | GRANT |
| 51. 23-V-595 | UC Keystone Owner LLC | Elevator | GRANT |
| 52. 23-V-596 | Benroohi Enterprises LLC | Elevator | GRANT |
| 53. 23-V-597 | Century WLAVA 1 LP | Elevator | GRANT |
| 54. 23-V-598 | San Luis Square, LLC | Elevator | GRANT |
| 55. 23-V-599 | Victory and Woodman LP | Elevator | GRANT |
| 56. 23-V-600 | VCA Animal Hospital, Inc. | Elevator | GRANT |
| 57. 23-V-601 | Southwestern College | Elevator | GRANT |
| 58. 23-V-602 | Civita Brynn, LLC | Elevator | GRANT |
| 59. 23-V-603 | Charities Housing | Elevator | GRANT |
| 60. 23-V-604 | 2949 Olympic QOZ Fund, LP | Elevator | GRANT |
| 61. 23-V-605 | 8651 Wilbur Avenue, LLC | Elevator | GRANT |
| 62. 23-V-606 | 3751 Wesix QOZ, LP | Elevator | GRANT |
| 63. 23-V-607 | Manteca Unified School District | Elevator | GRANT |
| 64. 23-V-608 | Twin Rivers Phase 4, L.P. (Block D) | Elevator | GRANT |
| 65. 23-V-609 | San Francisco University High School | Elevator | GRANT |
| 66. 23-V-610 | Jemcor Development Partners, LLC | Elevator | GRANT |

| Docket Number | Applicant Name | Safety Order(s) at Issue | Proposed Decision Recommendation |
|---|---|---|---|
| 67. 23-V-611 | City of Los Angeles | Elevator | GRANT |
| 68. 23-V-612 | 5420 Sunset Boulevard LP, LLC | Elevator | GRANT |
| 69. 23-V-613 | 5420 Sunset Boulevard LP, LLC | Elevator | GRANT |
| 70. 23-V-614 | Limelight Mammoth LLC | Elevator | GRANT |
| 71. 23-V-615 | DW LSP 550 TF, LLC | Elevator | GRANT |
| 72. 23-V-616 | Southwestern College | Elevator | GRANT |
| 73. 23-V-617 | The Standard 9.5, LLC | Elevator | GRANT |
| 74. 23-V-618 | 2437 Folsom Building Partners LLC | Elevator | GRANT |
| 75. 23-V-619 | 1457 Main Owner LP | 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:

Lawrence Berkeley National Laboratory

OSHSB File No.: 21-V-452M1

Proposed Decision Dated: January 25, 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

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DAVID HARRISON, Member

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NOLA KENNEDY, Member

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CHRIS LASZCZ-DAVIS, Member

_____
LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: February 15, 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:<br><br>Lawrence Berkeley National Laboratory | OSHSB File No.: 21-V-452M1<br><br>PROPOSED DECISION<br><br>Hearing Date: January 24, 2024<br>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], for the vertical platform lift having the specified preexisting variance location address of record:

| Preexisting Permanent Variance File No. | Applicant Name | Preexisting Variance Address of Record |
|---|---|---|
| 21-V-452 | Lawrence Berkeley National Laboratory | Lawrence Berkeley National Laboratory<br>Bldg. 73/73U<br>Centennial Drive<br>Berkeley, CA |

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

B. Procedural Matter

1. This hearing was held on January 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, Patrick Austin with Arrow Lift of California, appeared on behalf of the Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Department of Occupational Safety and Health ("Cal/OSHA").

[1] Unless otherwise noted, references are to the California Code of 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 Proposed Decision |

Official notice is taken of the Board's rulemaking records and variance decisions concerning the safety order provisions from which variance has been requested. On January 24, 2024, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. The Applicant requests a modification to indicate that the make and manufacturer of the vertical platform lift previously granted in Permanent Variance No. 21-V-452 has changed from a Bruno Model VPL-3314B Vertical Platform Lift to a Symmetry VPC SL-168 Vertical Platform Lift.

2. Applicant declares that it never installed the Bruno Model VPL-3314B Vertical Platform Lift that was the subject of Permanent Variance No. 21-V-452, and that Bruno has ceased production of this lift. Applicant declares that the Symmetry VPC SL-168 Vertical Platform Lift is the closest equivalent to this lift.

3. Cal/OSHA has evaluated the request for modification of the make and manufacturer of the vertical platform lift, 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 File No. 21-V-452.

4. The Board finds the above subpart D.2 referenced declaration to be credible, uncontroverted, and consistent with available, sufficient facts, and finds modification of the make and manufacturer of the vertical platform lift to be of no bearing as to the finding of equivalent occupational health and safety upon which the Grant of preexisting Permanent Variance No. 21-V-452 was, in part, based.

D. Decision and Order

1. Application for Modification of Permanent Variance No. 21-V-452M1 is conditionally GRANTED, thereby modifying Board records, such that the make and manufacturer of the vertical platform lift, at the address of record, has changed to Symmetry VPC SL-168.

2. Permanent Variance No. 21-V-452, being only modified as to the subject make and manufacturer of the vertical platform lift 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. 21-V-452M1.

3. 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.

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

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

Dated: January 25, 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 by:

Niima Outpost LLC

OSHSB File No.: 23-V-369M1
Proposed Decision Dated: January 25, 2024

DECISION

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

_____
DAVID THOMAS, Chairman

_____
JOSEPH M. ALIOTO JR., Member

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KATHLEEN CRAWFORD, Member

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DAVID HARRISON, Member

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NOLA KENNEDY, Member

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CHRIS LASZCZ-DAVIS, Member

_____
LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: February 15, 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:<br><br>Niima Outpost LLC | OSHSB File No.: 23-V-369M1<br><br>PROPOSED DECISION<br><br>Hearing Date: January 24, 2024<br>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], for each elevator having the specified preexisting variance location address of record:

| Preexisting OSHSB File No. | Applicant Name | Preexisting Variance Address of Record |
|---|---|---|
| 23-V-369 | Niima Outpost LLC | 2915 El Cajon Blvd.<br>San Diego, CA |

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

B. Procedural Matters

1. This hearing was held on January 24, 2024, via videoconference, by the Board, with Hearing Officer, Autumn Gonzalez, both presiding and hearing the matter on its merit in accordance with section 426.

   At the hearing, Wolter Geesink with Otis Elevator Company, and Dan Leacox of Leacox & Associates, appeared on behalf of the Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Department of Occupational Safety and Health ("Cal/OSHA").

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

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

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

4. Official notice is taken of the Board's rulemaking records and variance decisions concerning the safety order provisions from which variance has been requested. On January 24, 2024, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

C. Findings of Fact

1. The Applicant requests modification of the address of the unchanging variance location specified within Board records for each conveyance the subject of previously granted Permanent Variance 23-V-369.

2. 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-369 is in effect, in fact is more completely, and correctly the different address information specified in below subsection C.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 OSHSB Permanent Variance File No. 23-V-369.

4. The Board finds the above subpart C.2 referenced declaration to be credible, uncontroverted, and consistent with available, sufficient facts, and of no bearing as to the finding of equivalent occupational health and safety upon which Grant of preexisting Permanent Variance 23-V-369 was, in part, based.

5. The Board finds the correct address by which to designate the location of each conveyance the subject of Permanent Variance No. 23-V-369, to be:

2519 El Cajon Blvd
San Diego, CA

D. Decision and Order

1. Permanent Variance Application No. 23-V-369M1 is conditionally GRANTED, thereby modifying Board records, such that, without change in variance location, each conveyance being the subject of Permanent Variance Nos. 23-V-369, and 23-V-369M1, shall have the following address designation:

2519 El Cajon Blvd

San Diego, CA

2. Permanent Variance No. 23-V-369, 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-369M1.

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

Dated: January 25, 2024

Autumn Gonzalez, 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:

Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV)

OSHSB File No.: Per table, in Jurisdictional and Procedural Matters below
Proposed Decision Dated: January 25, 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

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DAVID HARRISON, Member

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NOLA KENNEDY, Member

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CHRIS LASZCZ-DAVIS, Member

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LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: February 15, 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:<br><br>Schindler 3300 with SIL-Rated Drive to De-energize Drive Motor (Group IV) | OSHSB File Nos.: Per table, in Jurisdictional and Procedural Matters below<br><br>PROPOSED DECISION<br><br>Hearing Date: January 24, 2024<br>Location: Zoom |

A. Jurisdictional and Procedural Matters

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

| Variance No. | Applicant Name | Variance Location Address | No. of Elevators |
|---|---|---|---|
| 23-V-544 | Linc - Core Pioneer LP | 515 Pioneer Drive<br>Glendale, CA | 1 |
| 23-V-545 | Linc - Core Pioneer LP | 525 Pioneer Drive<br>Glendale, CA | 1 |
| 23-V-546 | Linc - Core Pioneer LP | 535 Pioneer Drive<br>Glendale, CA | 2 |
| 23-V-547 | 2111 Firestone, LP | 2111 Firestone Blvd.<br>Los Angeles, CA | 1 |
| 23-V-563 | Phoenix 801 Pine LP | 801 Pine Street<br>Oakland, CA | 3 |
| 23-V-564 | 350 Palm Development LLC | 350 N. Palm Dr.<br>Beverly Hills, CA | 1 |
| 23-V-565 | LL Hospitality, LLC | 10354 Richardson St.<br>Loma Linda, CA | 2 |
| 23-V-566 | Neo Investment Group, LLC | 6115 Romaine St.<br>Los Angeles, CA | 1 |
| 23-V-567 | GB Towers, LLC | 402 W. Grand Ave.<br>Grover Beach, CA | 1 |

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

| | | | |
|---|---|---|---|
| 23-V-585 | The Retail Property Trust, a Massachusetts business trust | 1065 Brea Mall<br>Brea, CA | 2 |
| 23-V-586 | Iris at San Ysidro L.P. | 1663 Dairy Mart Road<br>San Ysidro, CA | 1 |
| 23-V-587 | 500 San Benito LLC | 500 San Benito St.<br>Hollister, CA | 1 |
| 23-V-598 | San Luis Square, LLC | 581 Higuera St.<br>San Luis Obispo, CA | 1 |
| 23-V-618 | 2437 Folsom Building Partners LLC | 2437 E. Folsom St.<br>Los Angeles, CA | 1 |
| 23-V-619 | 1457 Main Owner LP | 1457 N. Main St.<br>Los Angeles, CA | 2 |

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

3. This hearing was held on January 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. 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 Department 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 |

Official notice taken of the Board's rulemaking records, and variance decisions concerning the safety order requirements from which variance is requested. At close of hearing on January 24, 2024, the record was closed, and the matter taken under submission by the Hearing Officer.

B. Relevant Safety Order Provisions

Applicant seeks a permanent variance from section 3141 [ASME A17.1-2004, 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.

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:

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

> 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. 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[.]

3. 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

4. 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.

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

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

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

C. Findings of Fact

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

1. Applicant intends to utilize Schindler model 3300 MRL elevator cars at the locations listed in Jurisdictional and Procedural Matters, section 1.

2. The installation contract for these elevator was or will be signed on or after May 1, 2008, thus making the elevator subject to the Group IV Elevator Safety Orders.

3. The Schindler model 3300 MRL elevator cars are not supported by circular steel wire ropes, as required by the Elevator Safety Orders (ESO). They utilize non-circular elastomeric-coated steel belts and specialized suspension means fastenings.

4. No machine room is provided, preventing the inspection transfer switch from being located in the elevator machine room. The lack of machine room also prevents the seismic reset switch from being located in the elevator machine room.

5. Applicant proposes to relocate the inspection transfer switch and seismic reset switch in an alternative enclosure.

6. The driving machine and governor are positioned in the hoistway and restrict the required overhead clearance to the elevator car top.

7. Applicant proposes to insert the car-top railings at the perimeter of the car top.

8. Applicant intends to use an elevator control system, model CO NX100NA, with a standalone, solid-state motor control drive system that includes devices and circuits having a Safety Integrity Level (SIL) rating to execute specific elevator safety functions.

D. Conclusive Findings

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

E. Decision and Order

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

Elevator Safety Orders

• Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4, and 2.20.9.5.4 (Only to the extent necessary to permit the use of the Elastomeric-coated Steel Belts proposed by the Applicant, in lieu of circular steel suspension ropes.);

• Inspection transfer switch: 2.26.1.4.4(a) (Only to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room);

• Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Only to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room. room);

• Car-Top Railing: 2.14.1.7.1 (Only to the extent necessary to permit the use of the car-top railing system proposed by the Applicant, where the railing system is located inset from the elevator car top perimeter);

• Means of Removing Power: 2.26.9.6.1 (Only to the extent necessary to permit the use of SIL-rated devices and circuits as a means to remove power from the AC driving motor, where the redundant monitoring of electrical protective devices is required by the Elevator Safety Orders).

Conditions

1. The elevator suspension system shall comply to the following:

    a. The suspension traction media (STM) members and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:

        2.20.4.3 – Minimum Number of Suspension Members
        2.20.3 – Factor of Safety
        2.20.9 – Suspension Member Fastening

    b. The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the STM members and fastenings and related monitoring and detection systems and criteria for STM replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

        STM member mandatory replacement criteria shall include:

        i. Any exposed wire, strand or cord;
        ii. Any wire, strand or cord breaks through the elastomeric coating;
        iii. Any evidence of rouging (steel tension element corrosion) on any part of the elastomeric-coated steel suspension member;
        iv. Any deformation in the elastomeric suspension member such as, but not limited to, kinks or bends;

    c. Traction drive sheaves must have a minimum diameter of 72 mm. The maximum speed of STM members running on 72 mm, 87 mm and 125 mm drive sheaves shall be no greater than 2.5 m/s, 6.0 m/s and 8.0 m/s respectively.

    d. If any one STM member needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: if a new suspension member is damaged

during installation, and prior to any contemporaneously installed STM having been placed into service, it is permissible to replace the individual damaged suspension member. STM members that have been installed on another installation shall not be re-used.

e. A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.

f. A broken suspension member detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).

g. An elevator controller integrated bend cycle monitoring system shall monitor actual STM bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the STM makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single STM member drops below 80 percent of full rated strength. The monitoring means shall prevent the car from restarting. The bend cycle monitoring system shall be tested annually in accordance with the procedures required by condition 1b above.

h. The elevator shall be provided with a device to monitor the remaining residual strength of each STM member. The device shall conform to the requirements of Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Exhibit 1 and incorporated herein by reference.

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

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

k. Comprehensive visual inspections of the entire length of each and all installed suspension members, to the criteria developed in condition 1b, shall be conducted and documented every six months by a CCCM.

l. The Applicant shall be subject to the requirements set out in Exhibit 2 of this Decision and Order, “Suspension Means Replacement Reporting Condition,” Incorporated herein by this reference.

m. Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2 and 8.6.1.4, respectively.

2. If the inspection transfer switch required by ASME A17.1-2004, section 2.26.1.4.4 does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch

shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

3. If the seismic reset switch does not reside in the machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the control/machinery room/space containing the elevator's control equipment in an enclosure secured by a lock openable by a Group 1 security key. The enclosure is to remain locked at all times when not in use.

4. If there is an inset car-top railing:

    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit anyone to stand or climb over the car-top railing.

    b. The distance that the railing can be inset shall be limited to not more than 6 inches.

    c. All exposed areas of the car top outside the car-top railing where the distance from the railing to the edge of the car top exceeds 2 inches, shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.

    d. The top of the beveled area and/or car top outside the railing shall be clearly marked. The markings shall consist of alternating 4-inch diagonal red and white stripes.

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

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

    f. The Group IV requirements for car-top clearances shall be maintained (car-top clearances outside the railing will be measured from the car top and not from the required bevel).

5. The SIL-rated devices and circuits used to inhibit electrical current flow in accordance with ASME A17.1-2004, section 2.26.9.6.1 shall comply with the following:

    a. The SIL-rated devices and circuits shall consist of a Variodyn SIL-3 rated Regenerative, Variable Voltage Variable Frequency (VVVF) motor drive unit, model VAF013 or VAF023, labeled or marked with the SIL rating (not less than SIL 3), the name or mark of the certifying organization, and the SIL certification number (968/FSP 1556.00), and followed by the applicable revision number (as in 968/FSP 1556.00/19).

b. The devices and circuits shall be certified for compliance with the applicable requirements of ASME A17.1-2013, section 2.26.4.3.2.

c. The access door or cover of the enclosures containing the SIL-rated components shall be clearly labeled or tagged on their exterior with the statement:

**Assembly contains SIL-rated devices.**
**Refer to Maintenance Control Program and**
**wiring diagrams prior to performing work.**

d. Unique maintenance procedures or methods required for the inspection, testing, or replacement of the SIL-rated circuits shall be developed and a copy maintained in the elevator machine/control room/space. The procedures or methods shall include clear color photographs of each SIL-rated component, with notations identifying parts and locations.

e. Wiring diagrams that include part identification, SIL, and certification information shall be maintained in the elevator machine/control room/space.

f. A successful test of the SIL-rated devices and circuits shall be conducted initially and not less than annually in accordance with the testing procedure. The test shall demonstrate that SIL-rated devices, safety functions, and related circuits operate as intended.

g. Any alterations to the SIL-rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the alteration of SIL-rated devices, the alterations shall be made in conformance with ASME A17.1-2013, section 8.7.1.9.

h. Any replacement of the SIL-rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the replacement of SIL-rated devices, the replacement shall be made in conformance with ASME A17.1-2013, section 8.6.3.14.

i. Any repairs to the SIL-rated devices and circuits shall be made in compliance with the Elevator Safety Orders. If the Elevator Safety Orders do not contain specific provisions for the repair of SIL-rated devices, the repairs shall be made in conformance with ASME A17.1-2013, section 8.6.2.6.

j. Any space containing SIL-rated devices and circuits shall be maintained within the temperature and humidity range specified by Schindler Elevator Corporation. The temperature and humidity range shall be posted on each enclosure containing SIL-rated devices and circuits.

k. Field changes to the SIL-rated system are not permitted. Any changes to the SIL-rated system's devices and circuitry will require recertification and all necessary updates to the documentation and diagrams required by conditions d. and e. above.

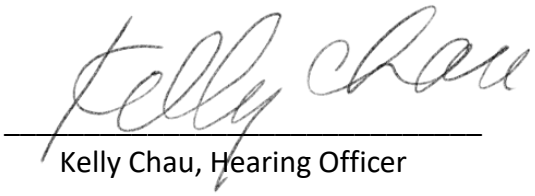
6. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in service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

7. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the docketed application for permanent variance per sections 411.2 and 411.3.

8. 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 Board for consideration of adoption.

DATED: January 25, 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 Cal/OSHA to promulgate special safety orders in the absence of regulation.

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

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

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

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

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

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

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

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

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQS

EXHIBIT 2

**Suspension Means – Replacement Reporting Condition**

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

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Pl., Suite 700, Santa Ana, CA 92707, Attn: Engineering section.

2. Each such report shall contain, but not necessarily be limited to, the following information:

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

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

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

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

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

    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.

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

    h. All information provided on the crosshead data plate per ASME Al7.l-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

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

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

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

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

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)

OSHSB File No.: Per section A.1 table
Proposed Decision Dated: January 25, 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: February 15, 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:<br><br>TK Elevator Evolution (Group IV) | OSHSB File Nos.: Per section A.1 table<br><br>PROPOSED DECISION<br><br>Hearing Date: January 24, 2024<br>Location: Zoom |

A. Procedural Matters

1. The Applicants ("Applicant") below have applied for permanent variance from certain 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 |
|---|---|---|---|
| 23-V-548 | Sterling City Science South Development, LLC | 9955 Pacific Heights Blvd., Building A<br>San Diego, CA | 7 |
| 23-V-549 | Sterling City Science South Development, LLC | 9925 Pacific Heights Blvd., Building B<br>San Diego, CA | 5 |
| 23-V-550 | Sterling City Science South Development, LLC | 5975 Pacific Mesa Court, Building G<br>San Diego, CA | 4 |
| 23-V-571 | 552 El Camino Estates LLC | 560 El Camino Real<br>San Carlos, CA | 1 |
| 23-V-572 | County of Santa Clara | 2300 Clove Dr.<br>San Jose, CA | 2 |
| 23-V-599 | Victory and Woodman LP | 13716 Victory Blvd.<br>Van Nuys, CA | 1 |

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

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

3. This hearing was held on January 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. At the hearing, Justin Zoetewey with TK Elevator Corporation appeared on behalf of each Applicant, Jose Ceja and Mark Wickens appeared on behalf of the Department 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(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 |

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

B. Relevant Safety Orders

*Variance Request No. 1 (ASME A17.1-2004, section 2.14.1.7.1)*

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

*Variance Request No. 2A (ASME A17.1-2004, section 2.20.1)*

*2.20.1 Suspension Means*

*Elevator cars shall be suspended by steel wire ropes attached to the car frame or passing around sheaves attached to the car frame specified in 2.15.1. Ropes that have previously been installed and used on another installation shall not be reused.*

*Only iron (low-carbon steel) or steel wire ropes, having the commercial classification "Elevator Wire Rope," or wire rope specifically constructed for elevator use, shall be used for the suspension of elevator cars and for the suspension of counterweights. The wire material for ropes shall be manufactured by the open-hearth or electric furnace process or their equivalent.*

*Variance Request No. 2B (ASME A17.1-2004, section 2.20.2[.1])*

*2.20.2.1 On Crosshead Data Plate.*

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

*(a) the number of ropes*

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

*(c) the manufacturer's rated breaking strength per rope in kilo Newton (kN) or pounds (lb)*

*Variance Request No. 2C (ASME A17.1-2004, section 2.20.2.2)*

*2.20.2.2 On Rope Data Tag.*

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

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

*[…]*

*(f) whether the ropes were nonpreformed or preformed*

*[…]*

*Variance Request No. 2D. (ASME A17.1-2004, section 2.20.3)*

*2.20.3 Factor of Safety*

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

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

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

*where*

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

*S = manufacturer's rated breaking strength of one rope*

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

*Variance Request No. 2E (ASME A17.1-2004, section 2.20.4)*

*2.20.4 Minimum Number and Diameter of Suspension Ropes*

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

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

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

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

*Variance Request No. 2F (ASME A17.1-2004, section 2.20.9[.1])*

*2.20.9 Suspension-Rope Fastening*

*2.20.9.1 Type of Rope Fastenings. The car and counterweight ends of suspension wire ropes, or the stationary hitch-ends where multiple roping is used, shall be fastened in such a manner that all portions of the rope, except the portion inside the rope sockets, shall be readily visible.*

*Fastening shall be*

*(a) by individual tapered rope sockets (see 2.20.9.4) or other types of rope fastenings that have undergone adequate tensile engineering tests, provided that*

*(1) such fastenings conform to 2.20.9.2 and 2.20.9.3;*

*(2) the rope socketing is such as to develop at least 80% of the ultimate breaking strength of the strongest rope to be used in such fastenings; or*

*(b) by individual wedge rope sockets (see 2.20.9.5); and*

*(c) U-bolt-type rope clamps or similar devices shall not be used for suspension rope fastenings.*

*Variance Request No. 3 (ASME A17.1-2004, section 2.26.9.4)*

*2.26.9.4 Redundant devices used to satisfy 2.26.9.3 in the determination of the*

*occurrence of a single ground, or the failure of any single magnetically operated switch, contactor or relay, or of any single solid state device, or any single device that limits the leveling or truck zone, or a software system failure, shall be checked prior to each start of the elevator from a landing, when on automatic operation. When a single ground or failure, as specified in 2.26.9.3, occurs, the car shall not be permitted to restart. Implementation of redundancy by a software system is permitted, provided that the removal of power from the driving-machine motor and brake shall not be solely dependent on software-controlled means.*

*Variance Request No. 4 (ASME A17.1-2004, section 2.26.9.6.1)*

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

*Variance Request No. 5 (ASME A17.1-2004, section 2.26.1.4[.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)]*

C. Findings

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.

4. Applicant proposes to comply with ASME A17.1-2013 sections 2.26.9.3, "Protection Against Failures", rather than the requirements of 2.26.9.3 and 2.26.9.4 in the ASME 2004 code.

5. Applicant proposes to use TKE's control systems, using the TKE TAC32T Controller with SIL3 rated elements, to provide equivalent safety to ASME A17.1-2004, section 2.26.9.4 as a means to inhibit flow of Alternating Current to the Driving Motor in compliance with ASME A17.1-2013, section 2.26.9.6.

6. Applicant proposes to locate the Inspection Transfer Switch within the machinery/control room/space in the MRL installation, in compliance with ASME 17.1-2013, section 2.26.1.4.

7. Applicant proposes to locate the Seismic-Operation Reset Switch in the machinery/control room/space in the MRL installation.

D. Decision and Order

Applicant is hereby conditionally GRANTED permanent variance as specified below, and to the limited extent, as of the date the Board adopts this Proposed Decision, with respect to the section A specified number of TKE EVO 200 elevator(s), at the specified location, each shall conditionally hold permanent variance from the following subparts of ASME A17.1-2004, currently incorporated by reference into section 3141 of the Elevator Safety Orders:

- Car-Top Railing: 2.14.1.7.1 (Limited to the extent necessary to permit the use of an inset car-top railing)

- Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, and 2.20.9.1 (Limited to the extent necessary to permit the use of the elastomeric-coated steel belts in lieu of circular steel suspension ropes)

- Inspection transfer switch: 2.26.1.4.4(a) (Limited to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room)

- Software Reliant Means to Remove Power: 2.26.9.4 (Limited to the extent necessary to permit the exclusive use of SIL-rated software systems as a means to remove power from the driving machine motor and brake)

- SIL-Rated Circuitry to Inhibit Current Flow: 2.26.9.6.1 (Limited to the extent necessary to permit the use of SIL-rated circuitry in place of an electromechanical relay to inhibit current flow to the drive motor)

- Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Limited to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room)

Inset Car Top Railing (variance Request No. 1):

1.0 Any and all inset car top railings shall comply with the following:

1.1 Serviceable equipment shall be positioned so that mechanics and inspectors do not have to stand on or climb over the railings to perform adjustments, maintenance, repairs or inspections. The Applicant shall not permit trained elevator mechanics or elevator service personnel to stand or climb over the car top railing.

1.2 The distance that the railing can be inset shall be limited to not more than six inches (6”).

1.3 All exposed areas of the car top outside the car top railing where the distance from the railing to the edge of the car top exceeds two inches (2”), shall be beveled with metal, at an angle of not less than 75 degrees with the horizontal, from the mid or top rail to the outside of the car top, such that no person or object can stand, sit, kneel, rest, or be placed in the exposed areas.

1.4 The top surface of the beveled area and/or car top outside the railing, shall be clearly marked. The markings shall consist of alternating 4” diagonal red and white stripes.

1.5 The Applicant shall provide durable signs with lettering not less than 1/2 inch on a contrasting background on each inset railing; each sign shall state:

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

1.6 The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).

Suspension Means (variance Request No. 2):

2.0 The elevator suspension system shall comply with the following:

2.1 The elastomeric coated steel belts (ECSBs) and their associated fastenings shall conform to the applicable requirements of ASME A17.1-2013, sections:

2.20.4.3 – Minimum Number of Suspension Members
2.20.3 – Factor of Safety
2.20.9 – Suspension Member Fastening

2.2 Additionally, ECSBs shall meet or exceed all requirements of ASME A17.6 2010, Standard for Elevator Suspension, Compensation, and Governor Systems, Part 3 Noncircular Elastomeric Coated Steel Suspension Members for Elevators.

2.3 The Applicant shall not utilize the elevator unless the manufacturer has written procedures for the installation, maintenance, inspection and testing of the ECSBs and fastenings and related monitoring and detection systems and criteria for ECSB replacement, and the Applicant shall make those procedures and criteria available to the Certified Competent Conveyance Mechanic (CCCM) at the location of the elevator, and to Cal/OSHA upon request.

2.4 ECSB mandatory replacement criteria shall include:

2.4.1. Any exposed wire, strand or cord;

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

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

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

2.5 Traction drive sheaves must have a minimum diameter of 112 mm. The maximum speed of ECSBs running on 112 mm drive sheaves shall be no greater than 6.1 m/s.

2.6 If any one (1) ECSB needs replacement, the complete set of suspension members on the elevator shall be replaced. Exception: If a new suspension member is damaged during installation, and prior to any contemporaneously installed ECSB having been placed into service, it is permissible to replace the individual damaged suspension member. ECSBs that have been installed on another installation shall not be re used.

2.7 A traction loss detection means shall be provided that conforms to the requirements of ASME A17.1-2013, section 2.20.8.1. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.12.

2.8 A broken suspension member detection means shall be provided that conforms to

the requirements of ASME A17.1-2013, section 2.20.8.2. The means shall be tested for correct function annually in accordance with ASME A17.1-2013, section 8.6.4.19.13(a).

2.9 An elevator controller integrated bend cycle monitoring system shall monitor actual ECSB bend cycles, by means of continuously counting, and storing in nonvolatile memory, the number of trips that the ECSB makes traveling, and thereby being bent, over the elevator sheaves. The bend cycle limit monitoring means shall automatically stop the car normally at the next available landing before the bend cycle correlated residual strength of any single ECSB member drops below (60%) sixty percent of full rated strength. The monitoring means shall prevent the car from restarting. Notwithstanding any less frequent periodic testing requirement per Addendum 2 (Cal/OSHA Circular Letter), the bend cycle monitoring system shall be tested semiannually in accordance with the procedures required per above Conditions 2.3 and 2.4.

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

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

2.12 Comprehensive visual inspections of the entire length of each and all installed suspension members, in conformity with above Conditions 2.3 and 2.4 specified criteria, shall be conducted and documented every six (6) months by a CCCM.

2.13 The Applicant shall be subject to the requirements per hereto attached, and inhere incorporated, Addendum 1, “Suspension Means Replacement Reporting Condition.”

2.14 Records of all tests and inspections shall be maintenance records subject to ASME A17.1-2004, sections 8.6.1.2, and 8.6.1.4, respectively.

2.15 The subject elevators(s) shall be equipped with a TK Elevator Model 104DP001 Residual Strength Detection Device accepted by Cal/OSHA on May 4, 2021 or Cal/OSHA accepted equivalent device.

<u>Control and Operating Circuits</u>
<u>Combined Software Redundant Devices with Software Removal of Power from Driving 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 Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and all applicable requirements met, including conditions of this permanent variance, prior to a Permit to Operate the elevator being issued. The elevator shall not be placed in full service prior to the Permit to Operate being issued by Cal/OSHA.

7.0 The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way and to the same extent that employees and

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

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

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

Date: January 25, 2024

Kelly Chau, Hearing Officer

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**ADDENDUM 1**

SUSPENSION MEANS REPLACEMENT REPORTING REQUIREMENTS

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

Further:

(1) A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, Attn: Engineering section, 2 MacArthur Place Suite 700, Santa Ana, CA 92707.

(2) Each such report shall contain, but not necessarily be limited to, the following information:

(a) The State-issued conveyance number, complete address, and OSHSB file number that identifies the permanent variance.

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

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

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

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

(f) A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.

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

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

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

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

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

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

## ADDENDUM 2

CIRCULAR LETTER E-10-04, October 6, 2010

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

SUBJECT: Coated Steel Belt Monitoring

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

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

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

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

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

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

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

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

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

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

Debra Tudor
Principal Engineer
Cal/OSHA-Elevator Unit HQ

**ADDENDUM 3**

(A) A Residual Strength Detection Device (RSDD) shall continuously monitor all Elastomeric Coated Steel Belt suspension members (ECSB), automatically stopping the car if the residual strength of any belt drops below 60%. The RSDD shall prevent the elevator from restarting after a normal stop at a landing. The RSDD shall device shall apply a form of electrical current and/or signal through the entire length of the steel tension elements of the ECSB and measure the current and/or signal on its return. The values measured shall be continuously compared to values that have been correlated to the remaining residual strength of the ECSB through testing. The required RSDD shall not rely upon giant magnetoresistance technology, or other magnetic measurement means, for residual strength detection or monitoring.

The RSDD must be properly installed and functional. A functioning device may be removed only after a determination has been made that the residual strength of each belt exceeds 60%. These findings and the date of removal are to be conspicuously documented in the elevator machine room or controller location. The removed RSDD must be replaced or returned to proper service within 30 days. If upon routine inspection, the RSDD device is found to be in a non-functional state, the date and findings are to be conspicuously documented in the elevator machine room or controller location.

If upon inspection by Cal/OSHA, the RSDD is found to be non-functional or removed, and the required documentation is not in place, the elevator will be removed from service. If the device is removed to facilitate belt replacement, it must be properly installed and functional before the elevator is returned to service.

(B) On or before November 21 2021, and thereafter, the above specified and documented RSDD shall be installed and operational on the subject elevator.

(C) A successful functionality test of each RSDD shall be conducted once a year, and a copy of completed testing documentation conspicuously located in the machine room or within proximity of the controller.

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:<br><br>KONE Monospace 500 Elevators (Group IV) | OSHSB File No.: see Section A.1 Table of Proposed Decision Dated: January 25, 2024<br><br>DECISION |

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Autumn Gonzalez, 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: February 15, 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:<br><br>KONE Monospace 500 Elevators (Group IV) | OSHSB File Nos.: See Section A.1 Table Below<br><br>PROPOSED DECISION<br><br>Hearing Date: January 24, 2024<br>Location: Zoom |

A. Subject Matter

1. Each applicant ("Applicant") below 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:

| Variance No. | Applicant Name | Variance Location Address | No. of Elevators |
|---|---|---|---|
| 23-V-551 | Crocker Apartments, L.P. | 425 S. Towne Ave.<br>Los Angeles, CA | 3 |
| 23-V-560 | City of San Diego Parks and Recreation Civic San Diego | 1338 G. St.<br>San Diego, CA | 1 |
| 23-V-574 | Thomas Safran & Associates | 8134 Van Nuys Blvd.<br>Los Angeles, CA | 2 |
| 23-V-581 | Los Angeles Community College District | 2525 Firestone Blvd.<br>South Gate, CA | 1 |

B. Procedural

1. This hearing was held on January 24, 2024 via video conference, by delegation of the Occupational Safety and Health Standards Board ("Board" or "OSHSB"), with Hearing Officer, Autumn Gonzalez, both presiding and hearing the matter on its merit in accordance with section 426.

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

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 Department 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 January 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 section 3141.7, subpart (a)(10):

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

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders, take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanant 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, as noted by Cal/OSHA, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.

14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and concluded it will provide for safety equivalent to ESO compliant 9.5 mm wire rope, with 0.56 mm outer wire (under conditions of use included within the below Decision and Order).

15. The applicant supplies tabulated data regarding the "Maximum Static Load on All Suspension Ropes." To obtain the tabulated data, the applicant uses the following formula derived from ASME A17.1 2004, section 2.20.3:

*W = (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 isin 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 submissions 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

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

E. Decision and Order

Each Application being the subject of this proceeding, per above Section A.1 table, is conditionally GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 500 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).

2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.

3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.

4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).

5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.

6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.

7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.

8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.

10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.

11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.

12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.

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

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

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

Dated: January 25, 2024

Autumn Gonzalez, 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) |
|---|---|---|---|---|
| 23-V-551 | 1 | 7 | 200 | 11556 |
| 23-V-551 | 2 | 7 | 200 | 11556 |
| 23-V-551 | 3 | 7 | 200 | 11556 |
| 23-V-560 | 3 | 7 | 150 | 12247 |
| 23-V-574 | 1 | 7 | 200 | 11556 |
| 23-V-574 | 2 | 7 | 200 | 11556 |
| 23-V-581 | 1 | 7 | 150 | 12247 |

## Appendix 2

### Suspension Means Replacement Reporting Condition

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

1. A separate report for each elevator shall be submitted, in a manner acceptable to Cal/OSHA, to the following address (or to such other address as Cal/OSHA might specify in the future): Cal/OSHA Elevator Unit, 2 MacArthur Place, Suite 700, Santa Ana, CA 92707, Attn: Engineering Section.

2. Each such report shall contain, but not necessarily be limited to, the following information:

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

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

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

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

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

    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.

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

    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that

pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

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

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

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

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in 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:<br><br>KONE Monospace 300 Elevators (Group IV) | OSHSB File No.: see Section A.1 Table of Proposed Decision Dated: January 25, 2024<br><br>DECISION |

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Autumn Gonzalez, 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: February 15, 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:<br><br>KONE Monospace 300 Elevators (Group IV) | OSHSB File Nos.: See Section A.1 Table Below<br><br>PROPOSED DECISION<br><br>Hearing Date: January 24, 2024<br>Location: Zoom |

A. Subject Matter

1. Each applicant ("Applicant") below 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:

| Variance No. | Applicant Name | Variance Location Address | No. of Elevators |
|---|---|---|---|
| 23-V-552 | Parkview Affordable Housing LP | 1351 41st St.<br>Los Angeles, CA | 2 |
| 23-V-561 | Topgolf USA Burlingame, LLC | 258 Anza Blvd.<br>Burlingame, CA | 2 |
| 23-V-562 | Lund Construction Co | 5302 Roseville Rd.<br>North Highlands, CA | 1 |
| 23-V-573 | Barry60 LP | 2800 Barry St.<br>Camarillo, CA | 1 |
| 23-V-575 | PTI US Towers II, LLC | 100 Topgolf Dr.<br>Montebello, CA | 2 |
| 23-V-576 | Creek Street Partners LLC | 1635 Creek St.<br>San Marcos, CA | 1 |
| 23-V-582 | Orange Unified School District | 525 N. Shaffer St.<br>Orange, CA | 1 |

B. Procedural

1. This hearing was held on January 24, 2024 via videoconference by delegation of the Occupational Safety and Health Standards Board ("Board" or "OSHSB"), with Hearing

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

Officer, Autumn Gonzalez, both presiding and hearing the matter on its merit in accordance with Section 426.

2. At the hearing, Fuei Saetern, with KONE, Inc., appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Department 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 January 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 to Cal/OSHA, having established an engineering practice for purposes of Monospace 300 elevator design, of meeting or exceeding the minimum factor of safety of 12 for 8 mm suspension members, as required in ASME A17.1-2010, 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 section 3141, incorporated ASME A17.1-2004, section 2.18.5.1.

9. ASME A17.1-2004, section 2.18.5.1, specifies, in relevant part:

> *2.18.5.1 Material and Factor of Safety.*
>
> *… [Governor ropes] not less than 9.5 mm (0.375 in.) in diameter. The factor of safety of governor ropes shall be not less than 5…*

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

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

11. Applicants propose use of 6mm governor rope having a safety factor of 5 or greater, in conformity with section 3141.7(a)(10), the specific parameters of which, being expressly set out within the Elevator Safety Orders, take precedence over more generally referenced governor rope diameter requirements per ASME A17.1-2004, section 2.18.5.1. Accordingly, the governor rope specifications being presently proposed, inclusive of a factor of safety of 5 or greater, would comply with current requirements, and therefore not be subject to issuance of permanent variance.

12. Absent evident diminution in elevator safety, over the past decade the Board has issued numerous permanent variances for use in KONE (Ecospace) elevator systems of 8 mm diameter suspension rope materially similar to that presently proposed (e.g. Permanent Variance Nos. 06-V-203, 08-V-245 and 13-V-303).

13. As noted by the Board in Permanent Variance Nos. 18-V-044 and 18-V-045, Decision and Order Findings, subpart B.17 (hereby incorporated by reference), the strength of wire rope operating as an elevator's suspension means does not remain constant over its years of projected service life. With increasing usage cycles, a reduction in the cross-sectional area of the wire rope normally occurs, resulting in decreased residual strength. This characteristic is of particular relevance to the present matter because, as also noted by Cal/OSHA, decreasing wire rope diameter is associated with a higher rate of residual strength loss. This foreseeable reduction in cross-sectional area primarily results from elongation under sheave rounding load, as well as from wear, and wire or strand breaks. However, these characteristics need not compromise elevator safety when properly accounted for in the engineering of elevator suspension means, and associated components.

14. The presently proposed wire rope is Wuxi Universal steel rope Co LTD. 8 mm 8x19S+8x7+PP, with a manufacturer rated breaking strength of 35.8 kN, and an outer wire diameter of less than 0.56 mm, but not less than 0.51 mm. Cal/OSHA's safety engineer has scrutinized the material and structural specifications, and performance testing data, of this particular proposed rope, and 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

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

E. Decision and Order

Each Application being the subject of this proceeding, per above Section A.1 table, is conditionally GRANTED, to the extent that each such Applicant shall be issued permanent variance from section 3141 incorporated ASME A17.1-2004, section 2.20.4, in as much as it precludes use of suspension rope of between 8 mm and 9.5 mm, or outer wire of between 0.51 mm and 0.56 mm in diameter, at such locations and numbers of Group IV KONE Monospace 300 elevators identified in each respective Application, subject to the following conditions:

1. The diameter of the hoisting steel ropes shall be not less than 8 mm (0.315 in) diameter and the roping ratio shall be two to one (2:1).

2. The outer wires of the suspension ropes shall be not less than 0.51 mm (0.02 in.) in diameter.

3. The number of suspension ropes shall be not fewer than those specified per hereby incorporated Decision and Order Appendix 1 Table.

4. The ropes shall be inspected annually for wire damage (rouge, valley break etc.) in accordance with "KONE Inc. Inspector's Guide to 6 mm diameter and 8 mm diameter steel ropes for KONE Elevators" (per Application Exhibit B, or as thereafter amended by KONE subject to Cal/OSHA approval).

5. A rope inspection log shall be maintained and available in the elevator controller room / space at all times.

6. The elevator rated speed shall not exceed those speeds specified per the Decision and Order Appendix 1 Table.

7. The maximum suspended load shall not exceed those weights (plus 5%) specified per the Decision and Order Appendix 1 Table.

8. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of the elevator equipment in the hoistway is required. If the service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.

9. The installation shall meet the suspension wire rope factor of safety requirements of ASME A17.1-2013 section 2.20.3.

10. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing or testing the elevators shall be provided a copy of this variance decision.

11. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA and a "Permit to Operate" issued before the elevator is placed in service.

12. The Applicant shall comply with suspension means replacement reporting condition per hereby incorporated Decision and Order Appendix 2.

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

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

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

Dated: January 25, 2024

Autumn Gonzalez, Hearing Officer

**Appendix 1**

Monospace 300 Suspension Ropes 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) |
|---|---|---|---|---|
| 23-V-552 | 1 | 7 | 150 | 12247 |
| 23-V-552 | 2 | 7 | 150 | 12247 |
| 23-V-561 | 1 | 7 | 150 | 12247 |
| 23-V-561 | 2 | 5 | 150 | 8748 |
| 23-V-562 | 1 | 7 | 150 | 12247 |
| 23-V-573 | Elevator 2 | 7 | 150 | 12247 |
| 23-V-575 | Elevator 1 | 7 | 150 | 12247 |
| 23-V-575 | Elevator 2 | 5 | 150 | 8748 |
| 23-V-576 | 1 | 7 | 150 | 12247 |
| 23-V-582 | 1 | 7 | 150 | 12247 |

## Appendix 2

### Suspension Means Replacement Reporting Condition

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

1. A separate report for each elevator shall be submitted, in a manner acceptable 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 OSHSB file number that identifies the permanent variance.

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

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

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

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

    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.

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

    h. All information provided on the crosshead data plate per ASME A17.1-2004, section 2.20.2.1, unless that ASME requirement is modified by the conditions of a variance that

pertains to the elevator in question, in which case, the information to be reported shall be the information required by the ASME provision as modified by the variance.

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

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

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

3. In addition to the submission of the report to Cal/OSHA, the findings of any testing, failure analysis, or other engineering evaluations performed on any portion of the replaced suspension components, or other elevator components replaced in conjunction therewith, shall be submitted to Cal/OSHA referencing the information contained in 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:<br><br>Otis Gen2S/Gen3Edge Elevator & Medical Emergency Elevator Car Dimensions (Group IV) | OSHSB File No.: see Section A.1 Table of Proposed Decision Dated: January 25, 2024<br><br>DECISION |

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

_____
DAVID THOMAS, Chairman

_____
JOSEPH M. ALIOTO JR., Member

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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: February 15, 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:<br><br>Otis Gen2S/Gen3Edge Elevator & Medical Emergency Elevator Car Dimensions (Group IV) | OSHSB File Nos.: See section A table below<br><br>PROPOSED DECISION<br><br>Hearing Date: January 24, 2024<br>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:

| Variance No. | Applicant Name | Variance Location Address | No. of Elevators |
|---|---|---|---|
| 23-V-553 | California State University, Chico | Behavioral and Social Sciences<br>400 W. First St.<br>Chico, CA | 2 |
| 23-V-554 | San Diego Naranja Associates, a CLP | Naranja Apartments<br>5256 Naranja St.<br>San Diego, CA | 2 |
| 23-V-559 | Riverpark Apartments Owner, LLC | 2700 N. Ventura Rd.<br>Oxnard, CA | 4 |
| 23-V-578 | 1911 New England LA, LLC | 1450 W. Washington Blvd.<br>Los Angeles, CA | 1 |
| 23-V-579 | Onni Broadway Hill Development LP | 230 W. Olympic Blvd.<br>Los Angeles, CA | 2 |
| 23-V-593 | Desert Community College District | College of the Desert - Indio Expansion<br>45524 Oasis St.<br>Indio, CA | 2 |
| 23-V-594 | UC Davis Health | UCDH Parking Structure 7<br>2861 50th St.<br>Sacramento, CA | 3 |

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

| | | | |
|---|---|---|---|
| 23-V-595 | UC Keystone Owner LLC | Keystone Marriott<br>495 W. San Carlos St.<br>San Jose, CA | 3 |
| 23-V-596 | Benroohi Enterprises LLC | 2837 San Marino St.<br>Los Angeles, CA | 1 |
| 23-V-597 | Century WLAVA 1 LP | West LA VA- Building 404<br>11301 Wilshire Blvd.<br>Los Angeles, CA | 1 |
| 23-V-601 | Southwestern College | Student Union<br>900 Otay Lakes Rd.<br>Chula Vista, CA | 1 |
| 23-V-602 | Civita Brynn, LLC | Brynn Apartments<br>2525 Via Alta<br>San Diego, CA | 2 |
| 23-V-603 | Charities Housing | 1860 Alum Rock Ave.<br>San Jose, CA | 1 |
| 23-V-604 | 2949 Olympic QOZ Fund, LP | 990 S. Mariposa Ave.<br>Los Angeles, CA | 2 |
| 23-V-605 | 8651 Wilbur Avenue, LLC | 18900 W. Parthenia St.<br>Northridge, CA | 1 |
| 23-V-606 | 3751 Wesix QOZ, LP | 549 S. Harvard Blvd.<br>Los Angeles, CA | 2 |
| 23-V-607 | Manteca Unified School District | East Union High School<br>1700 Union Rd.<br>Manteca, CA | 2 |
| 23-V-608 | Twin Rivers Phase 4, L.P. (Block D) | Twin Rivers (aka Mirasol Village)<br>Block D<br>1381 Swallowtail Ave.<br>Sacramento, CA | 2 |
| 23-V-609 | San Francisco University High School | 3150 California St.<br>San Francisco, CA | 1 |
| 23-V-610 | Jemcor Development Partners, LLC | 1007 Blossom Hill Rd.<br>San Jose, CA | 3 |
| 23-V-611 | City of Los Angeles | Engine Co. 23 Jr. Arts Center<br>525 E. 5th St.<br>Los Angeles, CA | 1 |

| | | | |
|---|---|---|---|
| 23-V-612 | 5420 Sunset Boulevard LP, LLC | 5420 W. Sunset Blvd.<br>Los Angeles, CA | 13 |
| 23-V-614 | Limelight Mammoth LLC | Hotel and Residences<br>15 Canyon Blvd.<br>Mammoth Lakes, CA | 4 |

2. The safety orders from which variance may issue, are enumerated in the portion of the below Decision and Order preceding the variance conditions.

B. Procedural

1. This proceeding is conducted in accordance with Labor Code section 143.

2. This hearing was held on January 24, 2024 via videoconference by the Occupational Safety and Health Standards Board ("Board" or "OSHSB") with Hearing Officer, Autumn Gonzalez, both presiding and hearing the matter on its merit, as a basis of proposed decision to be advanced to the Board for its consideration.

3. 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 Department of Occupational Safety and Health ("Cal/OSHA").

4. 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 Reviews of Variance Application |
| PD-4 | Review Draft-1 Proposed Decision |

5. Official notice is taken of the Board's rulemaking records, and variance files and decisions, concerning the Elevator Safety Order standards at issue. At close of hearing on January 24, 2024, the record was closed, and the matter taken under submission by the Hearing Officer.

C. Findings and Basis

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

D. Conclusive Findings

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

E. Decision and Order

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

- Car top railing: sections 2.14.1.7.1 (only to the extent necessary to permit an inset car top railing, if, in fact, the car top railing is inset);

- Speed governor over-speed switch: 2.18.4.2.5(a) (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);

- 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 Condition No. 13.c);

- Suspension means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions 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;

- Inspection transfer switch: 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

- Seismic reset switch: 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).

- 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)

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 the procedural manner prescribed.

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

Dated: January 25, 2024

_____
Autumn Gonzalez, 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 OSHSB file number that identifies the permanent variance.

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

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

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

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

    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.

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

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

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

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

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

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

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)

OSHSB File No.: see grid of
Proposed Decision Dated: January 25, 2024
DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Autumn Gonzalez, 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: February 15, 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:<br><br>Otis Medical Emergency Elevator Car Dimensions (Group IV) | OSHSB File No.: see grid below<br><br>PROPOSED DECISION<br><br>Hearing Date: January 24, 2024<br>Location: Zoom |

A. Jurisdictional and Procedural Matters

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:

| Variance No. | Applicant Name | Variance Location Address |
|---|---|---|
| 23-V-557 | 16411 Bellflower LLC | 16411 Bellflower Blvd.<br>Bellflower, CA |
| 23-V-558 | LB Stone Properties Group | 2177 Jerrold Ave.<br>San Francisco, CA |
| 23-V-591 | California Baptist University | Baseball & Softball Building<br>8432 Magnolia Ave.<br>Riverside, CA |
| 23-V-592 | Olive Knolls Church of the Nazarene | 6201 Fruitvale Ave.<br>Bakersfield, CA |
| 23-V-600 | VCA Animal Hospital, Inc. | VCA Emergency Animal Hospital<br>7675 Mission Valley Rd.<br>San Diego, CA |
| 23-V-616 | Southwestern College | Student Union<br>900 Otay Lakes Rd.<br>Chula Vista, CA |
| 23-V-617 | The Standard 9.5, LLC | 24000 W. Lugonia Ave.<br>Redlands, CA |

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

3. This hearing was held on January 24, 2024 via videoconference by the Occupational Safety and Health Standards Board ("Board" or "OSHSB") with Hearing Officer,

Autumn Gonzalez, 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, appeared on behalf of each Applicant; Jose Ceja and Mark Wickens appeared on behalf of the Department 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 rulemaking records, and variance files and decisions, concerning the Elevator Safety Order standards at issue. At close of hearing on January 24, 2024, the record was closed, and the matter taken under submission by the Hearing Officer.

B. Findings of Fact

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 the procedural manner prescribed.

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

DATED: January 25, 2024

Autumn Gonzalez, 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:

Mitsubishi Elevators (Group IV)

OSHSB File No.: See section A.1 Table
Proposed Decision Dated: January 25, 2024

DECISION

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

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DAVID THOMAS, Chairman

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JOSEPH M. ALIOTO JR., Member

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KATHLEEN CRAWFORD, Member

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DAVID HARRISON, Member

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NOLA KENNEDY, Member

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CHRIS LASZCZ-DAVIS, Member

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LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: February 15, 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:<br><br>Mitsubishi Elevators (Group IV) | OSHSB File Nos.: See section A.1 Table<br><br>PROPOSED DECISION<br><br>Hearing Date: January 24, 2024<br>Location: Zoom |

A. Procedural Matters

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

| Variance No. | Applicant Name | Variance Location Address | No. of Elevators |
|---|---|---|---|
| 23-V-568 | Messina CIC LP | 5257 Mt. Etna Drive, Bldg. A<br>San Diego, CA | 2 |
| 23-V-569 | Taormina Family Apartments CIC LP | 5251 Mt. Etna Drive, Bldg. C<br>San Diego, CA | 2 |
| 23-V-570 | Modica Family Apartments CIC LP | 5251 Mt. Etna Drive, Bldg. D<br>San Diego, CA | 2 |
| 23-V-588 | Family Health Centers of San Diego, Inc. | 4725 Market Street – Bldg. A<br>San Diego, CA | 2 |
| 23-V-589 | Sorrento Heights, LLC | 8018 Rose Quartz Circle<br>San Diego, CA | 4 |
| 23-V-590 | Sorrento Heights West, LLC | 7918 Collective Way<br>San Diego, CA | 4 |

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

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

3. This hearing was held on January 24, 2024 via videoconference by the Board with Hearing Officer, Kelly Chau, in accordance with section 426.

4. At the hearing, Matt Jaskiewicz with Mitsubishi Electric, Elevator Division 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. At the hearing, documentary and oral evidence was received, and by stipulation of all parties, documents were accepted into evidence:

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

Official Notice is taken of the Board's rulemaking records and variance decisions concerning the safety order requirements from which variance is requested. At the close of hearing on January 24, 2024, the record was closed and the matter taken under submission by the Hearing Officer.

B. Findings of Fact

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

1. Each section A table specified Applicant intends to utilize Mitsubishi elevators at the location and in the number stated in the table in Item A. The installation contracts for these elevators were signed on or after May 1, 2008, thus making the elevators subject to the Group IV Elevator Safety Orders.

2. The Board takes official notice and incorporates herein, Subsections D.3 through D.5 of the February 20, 2014, Decision of the Board in Permanent Variance No. 13-V-270.

3. As reflected in the record of this matter, including Cal/OSHA evaluation as PD-3, and testimony at hearing, it is the professionally informed opinion of Cal/OSHA, that grant of requested variance, subject to conditions and limitations in substantial conforming with those set out per below Decision and Order, will provide Occupational Safety and Health equivalent or superior to that provided by the safety order requirements from which variance is sought.

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

As of such date as the Board adopts this Proposed Decision, each Application for permanent variance listed in the above section A.1 table, is conditionally GRANTED to the extent each Applicant of record shall have permanent variance from section 3141 [ASME A17.1-2004, sections 2.10.2.2 (only to the extent necessary to permit the intermediate rail to be located at a point other than halfway between the top rail and the surface on which the railing is installed), 2.10.2.4 (only to the extent necessary to permit a bevel sloping that conforms with the variance conditions) and 2.14.1.7.1 (only to the extent necessary to permit the car top railing to be inset to clear obstructions when the conveyance is elevated to perform work on the machine and/or governor). The variance applies to the location and number of elevators stated in the section A.1 table, and the variance is subject to the above limitations and following conditions:

1. The car top railing may be inset only to the extent necessary to clear obstructions when the conveyance is located at the top landing to perform work on the machine and/or governor.

2. Serviceable equipment shall be positioned so that mechanics, inspectors, and others working on the car top can remain positioned on the car top within the confines of the railings and do not have to climb on or over railings to perform adjustment, maintenance, minor repairs, inspections, or similar tasks. Persons performing those tasks are not to stand on or climb over railing, and those persons shall not remove handrails unless the equipment has been secured from movement and approved personal fall protection is used.

3. All exposed areas outside the car top railing shall preclude standing or placing objects or persons which may fall, and shall be beveled from an intermediate or bottom rail to the outside of the car top.

4. The top surface of the beveled area shall be clearly marked. The markings shall consist of alternating 4-inch red and white diagonal stripes.

5. The Applicant shall provide a durable sign with lettering not less than ½-inch high on a contrasting background. The sign shall be located on the inset top railing; the sign shall be visible from the access side of the car top, and the sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER RAILING.
PERSONNEL ARE PROHIBITED FROM REMOVING HANDRAIL
UNLESS THE EQUIPMENT HAS BEEN SECURED FROM MOVEMENT
AND APPROVED PERSONAL FALL PROTECTION IS USED.

6. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing will be measured from the car top and not from the required bevel).

7. A mechanical means (e.g., locking bar mechanism) that will secure the car to the guide rail to prevent unintended movement shall be provided and used during machine and/or governor car-top work. The mechanical means (e.g., locking bar mechanism) shall have a safety factor of not less than 3.5 for the total unbalanced load.

8. An electrical switch or a lockout/tagout procedure shall be provided that will remove power from the driving machine and brake when the mechanical means (e.g., locking bar mechanism) is engaged.

9. In order to inhibit employees from working outside the car top railing, sections shall not be hinged and they shall be installed by means that will inhibit (but not necessarily completely preclude) removal. The Applicant shall ensure that all persons performing work that requires removal of any part of the car top railing are provided with fall protection that is appropriate and suitable for the assigned work. That fall protection shall consist of a personal fall arrest system or fall restraint system that complies with section 1670.

10. The bevel utilized by the Applicant in accordance with the variance granted from ASME A17.1-2004, section 2.10.2.4 shall slope at not less than 75 degrees from the horizontal to serve as the toe board; however, that slope may be reduced to a minimum of 40 degrees from the horizontal as may be required for sections where machine encroachment occurs.

11. If the Applicant directs or allows its employees to perform tasks on the car top, the Applicant shall develop, implement, and document a safety training program that shall provide training to Applicant employees. Components of the training shall include, but not necessarily be limited to, the following: car blocking procedures; how examination, inspection, adjustment, repair, removal and replacement of elevator components are to be performed safely, consistent with the requirements of the variance conditions; applicable provisions of the law and other sources of safety practices regarding the operation of the elevator. A copy of the training program shall be located in the control room of each elevator that is the subject of this variance, and a copy of the training program shall be attached to a copy of this variance that shall be retained in any building where an elevator subject to this variance is located. The Applicant shall not allow

Certified Qualified Conveyance Company (CQCC) or other contractor personnel to work on the top of any elevator subject to this variance unless the Applicant first ascertains from the CQCC or other contractor that the personnel in question have received training equivalent to, or more extensive than, the training components referred to in this condition.

12. Any CQCC performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.

13. Cal/OSHA shall be notified when the elevator is ready for inspection. The elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before the elevator is placed in service.

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

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

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

Dated: January 25, 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:<br><br>Otis Gen2S/Gen3Edge Elevator (Group IV) | OSHSB File No.: see section A.1 of Proposed Decision Dated: January 25, 2024<br>DECISION |

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

_____
DAVID THOMAS, Chairman

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JOSEPH M. ALIOTO JR., Member

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KATHLEEN CRAWFORD, Member

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DAVID HARRISON, Member

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NOLA KENNEDY, Member

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CHRIS LASZCZ-DAVIS, Member

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LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: February 15, 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:<br><br>Otis Gen2S/Gen3Edge Elevator (Group IV) | OSHSB File Nos.: See section A table below<br><br>PROPOSED DECISION<br><br>Hearing Date: January 24, 2024<br>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:

| Variance No. | Applicant Name | Variance Location Address | No. of Elevators |
|---|---|---|---|
| 23-V-577 | W4 Apartments, LLC | 401 S. Western Ave.<br>Los Angeles, CA | 2 |

B. Procedural

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

2. This hearing was held on January 24, 2024 via videoconference by the Occupational Safety and Health Standards Board ("Board" or "OSHSB") with Hearing Officer, Autumn Gonzalez, both presiding and hearing the matter on its merit, in accordance with section 426.

3. 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 Department of Occupational and Safety and Health ("Cal/OSHA").

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

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

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

5. Official notice is taken of the Board's rulemaking records, and variance files and decisions, concerning the Elevator Safety Order standards at issue. At close of hearing on January 24, 2024, the record was 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 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 Items (i.e. sections) D.3 through D.9 of the Proposed Decision adopted by the Board on July 18, 2013 regarding Permanent Variance No. 12-V-093 and Item D.4 of the Proposed Decision adopted by the Board on September 25, 2014 in Permanent Variance No. 14-V-206.

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

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, each Applicant listed in the above section A table shall have permanent variances from 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:

- 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);

- Speed governor over-speed switch: 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);

- 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 Condition No. 13.c);

- Suspension means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4 and 2.20.9.5.4—the variances from these "suspension means" provisions 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;

- Inspection transfer switch: 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

- Seismic reset switch: 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).

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 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. 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.

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 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.

16. The Applicant shall be subject to the Suspension Means – Replacement Reporting Condition stated in Addendum 2, as hereby incorporated by this reference.

17. 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.

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: January 25, 2024

Autumn Gonzalez, 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 OSHSB file number that identifies the permanent variance.

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

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

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

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

    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any conditions that existed to cause damage or distress to the suspension components being replaced.

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

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

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

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

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

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

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:

Uno Tre Otto

OSHSB File No.: 23-V-583
Proposed Decision Dated: January 25, 2024

DECISION

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

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DAVID THOMAS, Chairman

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JOSEPH M. ALIOTO JR., Member

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KATHLEEN CRAWFORD, Member

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DAVID HARRISON, Member

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NOLA KENNEDY, Member

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CHRIS LASZCZ-DAVIS, Member

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LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: February 15, 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 By:<br><br>Uno Tre Otto | OSHSB File No.: 23-V-583<br><br>Proposed Decision<br><br>Hearing Date: January 24, 2024<br>Location: Zoom |

A. Procedural Matters

1. Uno Tre Otto ("Applicant") has applied for a permanent variance from provisions of title 8 of the California Code of Regulations[1] regarding vertical platform (wheelchair) lifts, with respect to one vertical platform (wheelchair) lift proposed to be located at:

114 N Indian Hill Blvd Ste P
Claremont, CA

2. The safety orders at issue are stated in the prefatory part of the Decision and Order. 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 January 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 the hearing were Craig Fiore with McKinley Elevator Corporation appearing on behalf of the Applicant; Jose Ceja and Mark Wickens appearing on behalf of The Department 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 |

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

| Exhibit Number | Description of Exhibit |
|---|---|
| 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 January 24, 2024, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

B. Findings of Fact

Based on the record of this proceeding, and officially noticed Board records per (above section A.5) stipulation of Applicant and Cal/OSHA —inclusive of permanent variance file records of sworn testimony, findings and decisions in Permanent Variance No. 15-V-297, the Board finds the following:

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

   114 N Indian Hill Blvd Ste P
   Claremont, CA

2. Applicant requests variance solely from title 8, section 3142(a) and section 3142.1.

3. 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. Cal/OSHA's evaluation in this Matter, states that the more recent consensus code, ASME A18.1-2005, allows for vertical platform lifts to have a travel not exceeding 14 feet (168 in.).

5. 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 and 18-V-069)

6. 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 Uno Tre Otto, OSHSB File No. 23-V-583, is conditionally GRANTED to the limited extent, upon the Board's adoption of this Proposed Decision, Uno Tre Otto, shall have permanent variance from sections 3142(a) and 3142.1 incorporated ASME A18.1-2003, section 2.7.1, inasmuch as each restricts the vertical rise of a wheelchair lift to a maximum of 12 feet, with respect to one (1) Garaventa Lift, Model GVL-EN-168 or GVL-SW-168 Vertical Platform Lift, to be located at:

114 N. Indian Hill Blvd. Ste. P
Claremont, CA

The above referenced vertical platform lift shall be subject to the following further conditions and limitations:

1. This lift may travel up to 168 inches, unless the manufacturer's instructions provide for a lesser vertical travel limit, or lesser total elevation change, in which case, travel shall be limited to the lesser limit or elevation change.

2. The wheelchair lift shall be installed and operated in accordance with the manufacturer's instructions, unless the provisions of this variance or applicable provisions of the law provide 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.

5. The lift shall be tested annually for proper operation under rated load conditions. Cal/OSHA's 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 manner prescribed for its issuance.

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

Dated: January 25, 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 by:

Zoe Church

OSHSB File No.: 23-V-584
Proposed Decision Dated: January 25, 2024

DECISION

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

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DAVID THOMAS, Chairman

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JOSEPH M. ALIOTO JR., Member

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KATHLEEN CRAWFORD, Member

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DAVID HARRISON, Member

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NOLA KENNEDY, Member

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CHRIS LASZCZ-DAVIS, Member

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LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: February 15, 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 By:<br><br>Zoe Church | OSHSB File No.: 23-V-584<br><br>Proposed Decision<br><br>Hearing Date: January 24, 2024<br>Location: Zoom |

A. Procedural Matters

1. Zoe Church ("Applicant") has applied for a permanent variance from provisions of title 8 of the California Code of Regulations[1] regarding vertical platform (wheelchair) lifts, with respect to one vertical platform (wheelchair) lift proposed to be located at:

5206 N Figueroa St.
Los Angeles, CA

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

3. This hearing was held on January 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 appearing on behalf of of the Department 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 |

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

| Exhibit Number | Description of Exhibit |
|---|---|
| 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 January 24, 2024, the hearing and record closed, and the matter was taken under submission by the Hearing Officer.

B. Findings of Fact

Based on the record of this proceeding, and officially noticed Board records per (above section A.5) stipulation of Applicant and Cal/OSHA —inclusive of permanent variance file records of sworn testimony, findings and decisions in Permanent Variance No. 15-V-297, the Board finds the following:

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

   5206 N Figueroa St.
   Los Angeles, CA

2. Applicant requests variance solely from title 8, section 3142(a) and section 3142.1.

3. 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. Cal/OSHA's evaluation in this matter, states that the more recent consensus code, ASME A18.1-2005, allows for vertical platform lifts to have a travel not exceeding 14 feet (168 in.).

5. 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 and 18-V-069)

6. 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 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 Zoe Church, Permanent Variance No. 23-V-584, is conditionally GRANTED to the limited extent, upon the Board's adoption of this Proposed Decision, Zoe Church, shall have permanent variance from sections 3142(a) and 3142.1 incorporated ASME A18.1-2003, section 2.7.1, inasmuch as each restricts the vertical rise of a wheelchair lift to a maximum of 12 feet, with respect to one (1) Garaventa Lift, Model GVL-EN-168 or GVL-SW-168 Vertical Platform Lift, to be located at:

5206 N Figueroa St.
Los Angeles, CA

The above referenced vertical platform lift shall be subject to the following further conditions and limitations:

1. This lift may travel up to 168 inches, unless the manufacturer's instructions provide for a lesser vertical travel limit, or lesser total elevation change, in which case, travel shall be limited to the lesser limit or elevation change.

2. The wheelchair lift shall be installed and operated in accordance with the manufacturer's instructions, unless the provisions of this variance or applicable provisions of the law provide 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.

5. The lift shall be tested annually for proper operation under rated load conditions. Cal/OSHA's 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 manner prescribed for its issuance.

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

Dated: January 25, 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 Gen2O, and/or Gen3Peak with Variant Governor Rope and Sheaves with MES (Group IV)

OSHSB File No.: see Section A.1 of Proposed Decision Dated: January 25, 2024
DECISION

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

_____
DAVID THOMAS, Chairman

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JOSEPH M. ALIOTO JR., Member

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KATHLEEN CRAWFORD, Member

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DAVID HARRISON, Member

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NOLA KENNEDY, Member

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CHRIS LASZCZ-DAVIS, Member

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LAURA STOCK, Member

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Date of Adoption: February 15, 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:<br><br>Otis Gen2O, and/or Gen3Peak with Variant Governor Rope and Sheaves with MES (Group IV) | OSHSB File No: Per Section A.1 Table<br><br>PROPOSED DECISION<br><br>Hearing Date: January 24, 2024<br>Location: Zoom |

A. Procedural & Jurisdictional Matters

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:

| Variance No. | Applicant Name | Variance Location Address | No. of Conveyances |
|---|---|---|---|
| 23-V-613 | 5420 Sunset Boulevard LP, LLC | 5420 W. Sunset Blvd.<br>Los Angeles, CA | 3 |

2. The subject safety order requirements are specified in B. Applicable Regulations below.
3. These proceedings are conducted in accordance with Labor Code section 143 and section 401, et. seq. of the Board's procedural regulations.
4. This hearing was held on January 24, 2024 via videoconference by the Occupational Safety and Health Standards Board ("Board" or "OSHSB") with Hearing Officer, Autumn Gonzalez, both presiding and hearing the matter on its merit in accordance with section 426.
5. 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 Department of Occupational Safety and Health ("Cal/OSHA").
6. 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 |

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

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

   a. Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4, and 2.20.9.5.4 (Only to the extent necessary to permit the use of the Elastomeric Coated Steel Belts proposed by the Applicant in lieu of circular steel suspension ropes.);

   b. Cartop Railing: 2.14.1.7.1 (Only to the extent necessary to permit the use of the car top railing system proposed by the Applicant, where the railing system is located inset from the elevator car top perimeter);

   c. Inspection transfer switch: 2.26.1.4.4(a) (Only to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room);

   d. Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Only to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room);

   e. 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 Permanent Variance No. 22-V-302 regarding medical emergency car dimensions.

2. Regarding requested variance in governor sheave diameter, and governor rope diameter, in variance from title 8, 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's safety engineer, by way of written submissions to the record (Exhibit PD-3), and position stated at hearing, is of the well informed opinion that grant of requested permanent variance, as limited and conditioned per the below Decision and Order will provide employment, places of employment, and subject conveyances, as safe and healthful as would prevail given non-variant conformity with the Elevator Safety Order requirements from which variance has been requested.

D. Conclusive Findings

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

E. Decision and Order

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, 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:

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

strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.

d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.

e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

f. The coated steel belts used shall be accepted by Cal/OSHA.

g. The installation of belts and connections shall be in conformance with the manufacturer's specifications, which shall be provided to Cal/OSHA.

3. With respect to each elevator subject to this variance, the applicant shall comply with Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Addendum 1 and incorporated herein by this reference.

4. The Applicant shall not utilize each elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device, and criteria for belt replacement, and shall make those procedures and criteria available to Cal/OSHA upon request.

5. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

   a. The width and thickness in millimeters or inches;

   b. The manufacturer's rated breaking strength in (kN) or (lbf);

   c. The name of the person who, or organization that, installed the flat coated steel belts;

   d. The month and year the flat coated steel belts were installed;

   e. The month and year the flat coated steel belts were first shortened;

   f. The name or trademark of the manufacturer of the flat coated steel belts;

   g. Lubrication information.

6. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:

   a. The number of belts,

   b. The belt width and thickness in millimeters or inches, and

c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).

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

**CAUTION**
**DO NOT STAND ON OR CLIMB OVER RAILING**

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top, and not from the required bevel).

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

       *The medical emergency service elevator shall accommodate the loading and transport of two emergency personnel, each requiring a minimum clear 21-inch (533 mm) diameter circular area and an ambulance gurney or stretcher [minimum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5 inch (127 mm) radius corners] in the horizontal, open position."*

    b. All medical emergency service elevators shall be identified in the building construction documents in accordance with the 2019 CBC, Section 3002.4a.
    c. Dimensional drawings and other information necessary to demonstrate compliance with these conditions shall be provided to Cal/OSHA, at the time of inspection, for all medical emergency service elevator(s).
15. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
16. Cal/OSHA shall be notified when each elevator is ready for inspection. Each elevator shall be inspected by Cal/OSHA, and a Permit to Operate shall be issued before each elevator is placed in service.
17. The Applicant shall be subject to the suspension means replacement reporting condition stated in Addendum 2; that condition is incorporated herein by this reference.

18. The Applicant shall notify its employees or their authorized representative(s), or both, of this order in the same way that the Applicant was required to notify them of the application for permanent variance, per California Code of Regulations, title 8, 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: January 25, 2024

Autumn Gonzalez, 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 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 OSHSB file number that identifies the permanent variance.

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

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

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

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

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

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

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

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

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

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

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

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

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 Alteration (Group IV)

OSHSB File No.: see Section A.1 of Proposed Decision Dated: January 25, 2024
DECISION

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION by Autumn Gonzalez, 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: February 15, 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:<br><br>Otis Gen2O and/or Gen3Peak Alteration (Group IV) | OSHSB File No: Per Section A.1 Table<br><br>PROPOSED DECISION<br><br>Hearing Date: January 24, 2024<br>Location: Zoom |

## A. Procedural & Jurisdictional Matters

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:

| Variance No. | Applicant Name | Variance Location Address | No. of Conveyances |
|---|---|---|---|
| 23-V-615 | DW LSP 550 TF, LLC | 550 Terry A Francois Blvd. San Francisco, CA | 5 |

2. These proceedings are conducted in accordance with Labor Code section 143 and section 401, et. seq. of the Board's procedural regulations.

3. This hearing was held on January 24, 2024, in Sacramento, California, and via videoconference, by the Occupational Safety and Health Standards Board ("Board" or "OSHSB") with Hearing Officer Autumn Gonzalez, 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.

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 Department of Occupational Safety and Health ("Cal/OSHA").

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

| **Exhibit Number** | **Description of Exhibit** |
|---|---|
| PD-1 | Application(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 |

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

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

## B. Applicable Regulations

1. The Applicants request variance from the following sections of ASME A17.1-2004 that section 3141 makes applicable to the elevators the subject of those applications. The variance shall be from sections 3141 and 3141.2(a), and shall only be to the extent necessary to allow variances from the following provisions of ASME A17.1-2004 made applicable by those provisions:

    a. Suspension Means: 2.20.1, 2.20.2.1, 2.20.2.2(a), 2.20.2.2(f), 2.20.3, 2.20.4, 2.20.9.3.4, and 2.20.9.5.4 (Only to the extent necessary to permit the use of the Elastomeric Coated Steel Belts proposed by the Applicant in lieu of circular steel suspension ropes.);

    b. Cartop Railing: 2.14.1.7.1 (Only to the extent necessary to permit the use of the car top railing system proposed by the Applicant, where the railing system is located inset from the elevator car top perimeter);

    c. Inspection transfer switch: 2.26.1.4.4(a) (Only to the extent necessary to permit the inspection transfer switch to reside at a location other than the machine room);

    d. Seismic reset switch: 8.4.10.1.1(a)(2)(b) (Only to the extent necessary to permit the seismic reset switch to reside at a location other than the machine room);

## 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.

2. The alterations will be performed after May 1, 2008, and the contracts for the alterations were or will be signed on or after May 1, 2008, making those alterations subject to the Group IV Elevator Safety Orders.

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

**D. Conclusive Findings**

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

**E. Decision and Order**

Each permanent variance application the subject of this proceeding is conditionally GRANTED as specified below, and to the extent, as of the date the Board adopts this Proposed Decision, Applicant shall have permanent variances from sections 3141 and 3141.2(a), only to the extent necessary to allow variances from the following provisions of ASME A17.1-2004 made applicable by those provisions:

- 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);

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

1. Each elevator subject to this variance shall comply with all applicable Group IV Elevator Safety Orders and with all ASME provisions made applicable by those Group IV Elevator Safety Orders, except those from which variances are granted, as set forth in the prefatory portion of this Decision and Order.

2. The suspension system shall comply with the following:

a. The coated steel belt shall have a factor of safety at least equal to the factor of safety that ASME A17.1-2004, section 2.20.3, would require for wire ropes if the elevator were suspended by wire ropes rather than the coated steel belt.

b. Steel-coated belts that have been installed and used on another installation shall not be reused.

c. The coated steel belt shall be fitted with a monitoring device which has been accepted by Cal/OSHA and which will automatically stop the car if the residual strength of any single belt drops below 60 percent. If the residual strength of any single belt drops below 60 percent, the device shall prevent the elevator from restarting after a normal stop at a landing.

d. Upon initial inspection, the readings from the monitoring device shall be documented and submitted to Cal/OSHA.

e. A successful test of the monitoring device's functionality shall be conducted at least once a year (the record of the annual test of the monitoring device shall be a maintenance record subject to ASME A17.1-2004, section 8.6.1.4).

f. The coated steel belts used shall be accepted by Cal/OSHA.

g. The installation of belts and connections shall be in conformance with the manufacturer's specifications, which shall be provided to Cal/OSHA.

3. With respect to each elevator subject to this variance, the Applicant shall comply with Cal/OSHA Circular Letter E-10-04, a copy of which is attached hereto as Addendum 1 and incorporated herein by this reference.

4. The Applicant shall not utilize each elevator unless the manufacturer has written procedures for the installation, maintenance, inspection, and testing of the belts and monitoring device, and criteria for belt replacement, and shall make those procedures and criteria available to Cal/OSHA upon request.

5. The flat coated steel belts shall be provided with a metal data tag that is securely attached to one of those belts. This data tag shall bear the following flat steel coated belt data:

a. The width and thickness in millimeters or inches;

b. The manufacturer's rated breaking strength in (kN) or (lbf);

c. The name of the person who, or organization that, installed the flat coated steel belts;

d. The month and year the flat coated steel belts were installed;

e. The month and year the flat coated steel belts were first shortened;

f. The name or trademark of the manufacturer of the flat coated steel belts;

g. Lubrication information.

6. There shall be a crosshead data plate of the sort required by section 2.20.2.1, and that plate shall bear the following flat steel coated belt data:
   a. The number of belts,
   b. The belt width and thickness in millimeters or inches, and
   c. The manufacturer's rated breaking strength per belt in (kN) or (lbf).
7. If the seismic reset switch does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
8. If the inspection transfer switch required by ASME A17.1, rule 2.26.1.4.4(a), does not reside in a machine room, that switch shall not reside in the elevator hoistway. The switch shall reside in the inspection and test control panel located in one upper floor hoistway door jamb or in the control space (outside the hoistway) used by the motion controller.
9. When the inspection and test control panel is located in the hoistway door jamb, the inspection and test control panel shall be openable only by use of a Security Group I restricted key.
10. The opening to the hoistway shall be effectively barricaded when car top inspection, maintenance, servicing, or testing of elevator equipment in the hoistway is required. If service personnel must leave the area for any reason, the hoistway and control room doors shall be closed.
11. If there is an inset car top railing:
    a. Serviceable equipment shall be positioned so that mechanics and inspectors do not have to climb on railings to perform adjustment, maintenance, repairs, or inspections. The Applicant shall not permit anyone to stand on or climb over the car top railing.
    b. The distance that the car top railing may be inset from the car top perimeter shall be limited to no more than 6 inches.
    c. All exposed areas of the car top outside the car top railing shall preclude standing or placing objects or persons which may fall and shall be beveled from the mid- or top rail to the outside of the car top.
    d. The top of the beveled area and/or the car top outside the railing, shall be clearly marked. The markings shall consist of alternating four-inch diagonal red and white stripes.

e. The Applicant shall provide, on each inset railing, durable signs with lettering not less than ½ inch on a contrasting background. Each sign shall state:

**CAUTION**
**DO NOT STAND ON OR CLIMB OVER RAILING**

f. The Group IV requirements for car top clearances shall be maintained (car top clearances outside the railing shall be measured from the car top, and not from the required bevel).

12. Each elevator shall be serviced, maintained, adjusted, tested, and inspected only by Certified Competent Conveyance Mechanics who have been trained to, and are competent to, perform those tasks on the Gen2(O) and/or Gen3 Peak elevator system the Applicant proposes to use, in accordance with the written procedures and criteria required by Condition No. 4 and the terms of this permanent variance.
13. Any Certified Qualified Conveyance Company performing inspections, maintenance, servicing, or testing of the elevators shall be provided a copy of this variance decision.
14. 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 the elevator is placed in service.
15. The Applicant shall be subject to the suspension means replacement reporting condition stated in Addendum 2; that condition is incorporated herein by this reference.
16. 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.
17. 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: January 25, 2024

Autumn Gonzalez, 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 OSHSB file number that identifies the permanent variance.

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

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

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

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

    f. A detailed description of, and clear color photographs depicting, (1) all the conditions that existed in the suspension components requiring their replacement and (2) any

conditions that existed to cause damage or distress to the suspension components being replaced.

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

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

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

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

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

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

# Occupational Safety and Health Standards Board

## Business Meeting

## Legislative Update

# THERE WILL BE NO LEGISLATIVE UPDATE FOR THIS MONTH'S MEETING

# Occupational Safety and Health Standards Board

## Business Meeting

## Acting Executive Officer's Report