



Memorandum

Date: April 6, 2020

To: Christina Shupe, Executive Officer
Occupational Safety and Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

From: Eric Berg, Deputy Chief *Eric Berg*
Division of Occupational Safety and Health

Subject: Evaluation of Petition No. 587 to amend title 8 section 1630 Elevators for Hoisting Workers.

1.0 INTRODUCTION

On November 4, 2020 the Division of Occupational Safety and Health (Cal/OSHA) received a petition from Donald A. Zampa, President of District Council of Iron Workers and Greg McClelland, Executive Director of Western Steel Council (petitioners) to amend title 8 section 1630 Elevators for Hoisting Workers.

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

2.0 BACKGROUND ON TITLE 8 SECTION 1630

Section 1630 requires the installation and operation of a construction passenger elevator (CPE) on structures under construction whose final height will equal or exceed 60 feet. For many years, pursuant to subsection 1630(d), Cal/OSHA held that the CPE must be installed when a structure reaches 36 feet in height.

On June 18, 2018 and July 10, 2018, administrative law judges (ALJ) with the Occupational Safety and Health Appeals Board (Appeals Board) issued non-precedential ALJ decisions for KPRS Construction Services and California Structural Concepts Inc. respectively. The ALJ decisions vacated Cal/OSHA section 1630 citations requiring the installation of CPEs at 36 feet. The ALJ decisions held the CPEs did not need to be installed until a structure reaches 60 feet in height.

On April 3, 2019, Cal/OSHA submitted a Request for New or Change in Existing Safety Order (Form 9) to the Standards Board requesting changes to section 1630. This request is included as Attachment 1 to this evaluation. Cal/OSHA submitted the Form 9 to clarify existing language and enhance employee safety with the following proposed changes to section 1630:

1. Clarify that a CPE must be installed when a structure reaches 36 feet in height or depth.
2. Clarify that a CPE must service each required landing.
3. Require a CPE to service the roof level of a building or structure.
4. Establish a maximum amount of time that an employee needs to travel to reach a CPE.

On May 29, 2019, the Appeals Board issued a precedent setting consolidated decision after reconsideration (DAR) for Alpha Construction Company, California Structural Concepts Inc., and KPRS Construction Services Inc. The DAR upheld the earlier ALJ decisions that CPEs do not have to be installed until a structure under construction reaches 60 feet in height.

On June 7, 2019 the petitioners submitted petition 577 to the Standards Board to amend section 1630(a). Petition 577 requested CPEs be installed and operational when a structure reaches 36 feet in height if the structure will be 60 feet or greater at completion. On June 20, 2019 the Standards Board granted petition 577 and the resulting change to title 8 section 1630(a) became effective July 27, 2020.

3.0 PETITIONERS REQUESTS

3.1 Expedite Cal/OSHA Form 9 Submitted April 3, 2019

The petitioners request the Standards Board expedite its review of the Cal/OSHA Form 9 submitted on April 3, 2019. Additionally, the petitioner states clarification is needed to the exact depth below ground level when a CPE is required to be installed for buildings or structures 48 feet below ground level or greater at completion.

3.2 Alternate Access Criteria

The petitioner requests clearer and more specific criteria for when an alternative¹ to a CPE is allowed. Currently, the petitioner argues, there is variation among DOSH district offices on how to apply the current requirements, which are vague and overly permissive in allowing alternative access.

3.3 Documentation for Alternate Access

When alternative access is allowable, the petitioner requests that section 1630 be changed to require permit applicants submit detailed engineering calculations to substantiate the infeasibility of a CPE and to provide, in writing, detail sufficient to demonstrate the safety and effectiveness of whatever alternative access is sought by the permit applicant.

4.0 APPLICABLE TITLE 8 REGULATIONS

California Code of Regulations, title 8 section 1630 includes requirements for the installation, operation and maintenance of CPEs at construction sites. This section also addresses acceptable conditions and

¹ Alternatives to a CPE allowed by section 1630 in certain situations include: crane suspended personnel platforms, suspended power-driven scaffold, vehicle-mounted elevating work platforms, other means acceptable to Cal/OSHA.

alternate means of access in lieu of a CPE. The underlined portion notes the new language effective July 27, 2020.

Subchapter 4. Construction Safety Orders

Article 18. Access and Egress

§1630 Elevators for Hoisting Workers.

(a) In addition to the stairways required in Section 1629, a construction passenger elevator for hoisting workers shall be installed and in operation on or in any building, or structure, designed to be 60 feet or more in height above or 48 feet in depth below ground level when completed. The elevator shall be installed and operational when the building or structure reaches 36 feet in height. The building or structure height shall be determined by measuring from ground level to the highest structural level including the parapet walls, mechanical rooms, stair towers and elevator penthouse structures but excluding antennas, smokestacks, flag poles and other similar attachments.

The building or structure depth shall be determined by measuring from ground level to the lowest floor level excluding local depression such as sumps and elevator pits.

Ground level, for the purposes of this section, is defined as the level of the primary construction entrance to the building or structure.

When computing the height, the depth shall not be considered; and when computing the depth of the building or structure, the height shall not be considered. If the height is at 60 feet or more above or at 48 feet or more below ground level, a construction elevator(s) shall be installed to serve both locations.

EXCEPTIONS:

(1) Scaffolds and falsework.

(2) At work locations where unusual site conditions or unusual structure configurations exist, alternate means of access in conformance with Section 1630(c) shall be permitted.

NOTE: For the purposes of this Section, unusual site conditions and structure configurations are considered to exist at those work locations where the installation of a construction passenger elevator is not feasible.

EXAMPLES:

Unusual site conditions or structure configurations are bridges, steel tank erection, dams, water towers, antennas, cooling towers, refinery towers, stacks, prefabricated parking structures, tower cranes, etc.

* * *

(c) At unusual site conditions or structure configurations, the Division shall permit alternate means of access, consisting of one or more, but not limited to, the following:

(1) Use of personnel platforms designed, constructed, and operated as specified by Section 5004 of the General Industry Safety Orders, and only under the conditions permitted by the general requirements of that section.

(2) Use of suspended power-driven scaffolds where employees are protected by safety belts secured to independent safety lines by means of a descent control device acceptable to the Division.

(3) Use of appropriate vehicle-mounted elevating and rotating work platforms.

(4) Use of other means, such as inclined elevators, etc. acceptable to the Division, presented in written form and acceptance granted prior to use.

(d) Landings shall be provided for the passenger elevator on or in buildings or structures at the upper-most floor and at intervals not to exceed 3 floors or 36 feet.

NOTE: Other landing locations acceptable to the Division may be substituted where the design of the building or structure make the above impractical.

* * *

5.0 TITLE 29 CODE OF FEDERAL REGULATIONS

Code of Federal Regulations (CFR) Title 29, section 1926.552 contains regulations pertaining to the operation of a CPEs. However, CFR Title 29 does not specify when CPEs must be installed.

6.0 ANALYSIS

6.1 Request to Expedite Cal/OASHA Form 9 Submitted April 3, 2019

Cal/OSHA supports the petitioner's request that the Standards Board expedite their review of Cal/OSHA's April 3, 2019 Form 9. The petition indicates support from the steel erection industry for Cal/OSHA's Form 9 and that it is needed to enhance employee safety. The Form 9 contained proposed changes that were not addressed by Petition 577, as follows:

6.1.1 Section 1630 is not clear on when CPEs need to be installed for underground structures

Rulemaking resulting from Petition 577 only addressed above ground structures and left unclarified when CPEs must be installed for underground structures that are 48 feet or more in depth. Changes to section 1630 are still needed to address underground structures.

6.1.2 Section 1630 is Not Clear That CPE Access is Required to the Roof of Buildings and Structures

Subsection 1630(d) requires CPE access every 36 feet and at the upper-most floor. Cal/OSHA has long held that the upper-most floor of a structure includes the roof. The Appeals Board agreed initially, but then reversed itself. Due to the inconsistent nature of the Appeals Board's decisions, section 1630 should be changed to make the requirement clear.

6.1.3 Section 1630 is not Clear that CPE Service Must be Provided to Each Required Landing.

Section 1630(d) needs clarification regarding CPE service to all required landings. The current language of this subsection requires that landings *"be provided for the passenger elevator on or in buildings or structures at the upper-most floor and at intervals not to exceed 3 floors or 36 feet"* but does not expressly require the CPE to service the landings provided. The proposed changes to title 8 section 1630(d) would eliminate this ambiguity.

6.1.4 CPE Access Should be Provided to Allow Employees to Reach a Services Landing in a Reasonable Time.

Section 1630(a) requires a single CPE for each structure 60 feet or greater in height or 48 feet or greater in depth. This requirement, however, does not take into account varying travel distances and

routes that may be required of employees to access the CPE. Modern construction has given rise to buildings of ever-increasing size and complexity of design. The proposed amendment to section 1630(a) would change the current static requirement of a single CPE per structure to a performance time-based requirement. The proposed change would require that CPE access be provided so that any employee need not travel more than five minutes to access a serviced elevator landing.

6.2 Alternate Access Criteria – Defining “Unusual Site Conditions or Unusual Structure Configurations”

An exception in subsection 1630(a) allows an alternative to a CPE where “*unusual site conditions or unusual structure configurations exist.*” The exception is the following:

* * *

EXCEPTIONS:

* * *

(2) At work locations where unusual site conditions or unusual structure configurations exist, alternate means of access in conformance with Section 1630(c) shall be permitted.

NOTE: For the purposes of this Section, unusual site conditions and structure configurations are considered to exist at those work locations where the installation of a construction passenger elevator is not feasible.

EXAMPLES:

Unusual site conditions or structure configurations are bridges, steel tank erection, dams, water towers, antennas, cooling towers, refinery towers, stacks, prefabricated parking structures, tower cranes, etc.

* * *

Cal/OSHA does not believe additional prescriptive criteria is needed to define “*unusual site conditions or unusual structure configurations*” that allow alternative access in lieu of a CPE. Title 8 section 1630 must be applied to a broad range of building and structure designs in an ever-evolving construction industry. The current performance-based language is better suited than prescriptive criteria as it is more readily adaptable to changes and innovations in industry.

6.3 Documentation for Alternate Access

6.3.1 Engineering Calculations

Cal/OSHA agrees that detailed engineering calculations substantiating the infeasibility of a CPE should be required for specific situations. Such situations would include when an employer claims that the building or structure cannot support the forces produced during the installation or operation of a CPE. It would not be prudent, however, to apply this requirement broadly to every claim of infeasibility. For example, alternate access would likely be approved by Cal/OSHA for a roller-coaster ride because of unusual structure configuration since the structure would have no floors for the CPE to service. It would be unnecessary, however, to request engineering calculations for this situation as the alternative access request would not be based on the structure’s ability to support the CPE.

6.3.2 Safety and Effectiveness of the Alternate Access

Cal/OSHA supports the petitioner's request to require a written document with sufficient detail to demonstrate the safety and effectiveness of any alternates proposed in lieu of a CPE. Section 1630 lacks any requirements for an alternate access plan to demonstrate a safe and effective means for alternate access. Cal/OSHA recommends the written alternate access plan document include at least the following:

1. A detailed description of the reason that a CPE may not be utilized for access.
2. A description of the safe and effective mechanical means of access to be utilized in lieu of a CPE including the operator's qualifications for such equipment.
3. Manufacturer or other documentation for the mechanical means of access to be utilized to ensure adequate capacity and ability to service all required work locations.
4. A safe and effective means to transport an incapacitated or injured worker to the ground level.
5. A statement that the alternate means of access will be provided for employees during all work hours.
6. A description of training to be provided to employees regarding the alternate access plan and safe use of the mechanical access.

7.0 CONCLUSION

7.1 Request to Expedite Cal/OSHA Form 9 submitted April 3, 2019 - GRANT

Cal/OSHA recommends that the petitioner's request for the Board to expedite its review of the Request for Change in Existing Safety Order (Form 9) be granted and that the language of the Form 9 be considered as the proposed amendments.

7.2 Request for Alternate Access Criteria - NEUTRAL

Although Cal/OSHA does not believe "*unusual site conditions or unusual structure configurations*" needs to be more specifically defined in section 1630, Cal/OSHA is not opposed to discussing the issue with stakeholders if an advisory meeting is convened to discuss other matters of this petition.

7.3 Request for Engineering Calculations to Support Alternate Access - GRANT

Cal/OSHA recommends that the petitioner's request to require detailed engineering calculations substantiating the infeasibility of a CPE be granted insofar as an advisory committee is convened to discuss the appropriate language for the regulation.

7.4 Request for Written Documentation of Safe and Effective Means of Alternate Access - GRANT

Cal/OSHA recommends that the petitioner's request to require a written document with sufficient detail to demonstrate safe and effective alternatives to CPEs be granted insofar as an advisory committee be convened to discuss the recommendations included in this evaluation and the appropriate language for the regulation.