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MINUTES FROM THE ADVISORY COMMITTEE FOR
CONSTRUCTION SAFETY ORDERS,
SECTION 1630,
ELEVATORS FOR HOISTING WORKERS
August 31, 2022
Sacramento, CA

1. Call to Order.

The meeting was called to order by the Acting Advisory Committee Chair (Acting Chair), Amalia Neidhardt, Senior Safety Engineer, Occupational Safety and Health Standards Board (Board), at 9:30 am on Wednesday, August 31, 2022. The Acting Chair was assisted by Bernie Osburn, Associate Governmental Program Analyst, OSHSB. David Kernazitskas, who had planned on chairing the advisory committee, was unable to attend the meeting in person, so he observed via Microsoft Teams.

2. Opening remarks.

The Acting Chair welcomed the attendees and started the introductions of those who intended to speak during the committee meeting. She then reviewed the Standards Board policy regarding the use of advisory committees, explaining that the Board has found advisory committees to be an effective way to develop a proposal because of the expertise of the attendees. She also provided general information about the rulemaking process.

3. Discussion of the proposed rulemaking.

Background

The Acting Chair explained that the advisory committee was convened in response to Petition 587 and a request from Cal/OSHA dated April 3, 2019.

Discussion on Section 1630(a)

(a) In addition to the stairways required in §section 1629, ~~at least one~~ 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 unless or until a permanent passenger elevator meeting the requirements of article 14, section 1604.4 provides service to all required landings and the uppermost level the elevator is designed to service [Could be moved to exceptions]. ~~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...~~

Michael Donlon (representing Construction Employers Association) suggested adding freight elevators to the text allowing the construction passenger elevator (CPE) to be removed. He said that when a passenger or freight elevator is present, the CPE should no longer be required. He explained that freight elevators are often operational before passenger elevators because they can take more damage and be treated more roughly during construction.

Russell McCrary (Ironworkers Compensation Program) said that the text allowing the CPE to be removed should be deleted from the proposal because the CPE are not able to be removed for extended periods on long construction projects such as high rise buildings.

Mr. Donlon responded to **Mr. McCrary** pointing out that section 1604.4 already states when the CPE can be removed and that it is similar to the text proposed here. He said that it was helpful to include here to remove confusion on the jobsite regarding when the CPE can be removed.

Brian Mello (Associated General Contractors of California) said that he liked the proposed addition because it tells contractors when the CPE is able to be removed from the building. He said he likes the clarification of the amendment and that it removes guesswork.

Andrew Siersema (McClone Construction) suggested that a definition for “in operation” is necessary to clarify when an operator is needed inside the CPE.

Greg McClelland (Western Steel Council) questioned the need for the text “unless or until...” in the proposal. He said that he agreed with **Mr. Donlon’s** suggestion that a freight elevator be allowed to be used in place of a CPE.

Len Welsh (Attorney representing Western Steel Council) suggested the regulation read “one or more” instead of “at least one” in regard to the number of CPE that are required to be installed. He said that “at least one” could lead to confusion in interpreting the standard.

Kevin Bland (Attorney representing Western Steel Council) said that the first paragraph addresses both when the CPE is required and when it can be taken down. He suggested that separating the concepts into two paragraphs could lead to greater clarity in the regulation.

Justin Wheaton (Skanska USA Civil / AGC Safety & Health Council) said that the proposed text does not address the removal of a CPE when the finished building will not have a permanent elevator. He said that criteria for removal of the CPE were needed for those instances as well.

Larry Fabbro (Level 10 Construction) asked if an employee was changing an air filter on a building “designed to be 60 feet or higher” if the employee would need a CPE. **Jason Denning** (Cal/OSHA) said that maintenance of the building would fall under General Industry Safety Orders, so this proposal would not apply to that activity. **Mr. Donlon** pointed out that “construction maintenance” can be confused with “building maintenance.” He added that non-building structures such as the Carquinez Bridge are unable to have a CPE installed. He said that we should clarify more when a CPE is required and not. **Mr. Fabbro** said that additional clarification is helpful because minor construction tasks can be performed (e.g. replacing an air handler, adding support beams), which could require a CPE or not depending on someone’s interpretation of the requirements.

Discussion on Section 1630(a)(1)

~~(a)(1) On buildings and structures, the elevator shall be installed and operational as soon as the decking is substantially intact or welded in or other means of providing a landing exist with the first landing at a height not to exceed 36 feet.~~

(a)(1) The CPH [elevator] shall be installed and operating before any employees work at a height over 36 feet.

Mr. Denning said that proposed subsection 1630(a)(1) mentions substantially intact decking, but said that the vague term could be used as support for delaying the installation of the CPE.

Mr. Bland suggested that we create language to address when the CPE is required, when it must be installed, and when it can come down. He said that proposed section (a)(1) is too vague and will lead to more confusion since not all buildings have decking or are welded.

Michael Holland (Clark Construction) said that we needed to clarify what is an appropriate landing.

Mr. Donlon said that the problem with the proposed-to-be-stricken language in section 1630(a) is that it isn't clear enough. He said that he agrees with **Mr. Bland** and **Mr. Holland** about the need for clarifications. He said that general contractors do not intentionally delay construction projects because delays cost money. He added that it doesn't make sense to require a CPE for a 36-foot tall column if there is no landing.

Larry McCune (Cal/OSHA) said that we should separate out the requirements for clarity. He said that one section should address the need for an elevator and another should address the landings and exceptions.

Mr. McClelland suggested adding definitions to the section to help with clarity.

Mr. Bland agreed and suggested creating the regulation and noting the definitions that need work later.

Mr. Donlon said that section 1630(a) should be broken up into clearer parts instead of left as is.

Mr. Bland said that subsection 1630(a)(1) should clarify more precisely when the CPE is required at the 36 feet height.

Eric Berg (Cal/OSHA) said that the stricken language is better than proposed (a)(1).

Mr. Donlon said that the regulation should require that the CPE be installed before any workers are required to work above 36 feet. He suggested that (a)(1) read "The CPE shall be installed and operational before any employees work at a height over 36 feet."

Mr. Welsh said that **Mr. Donlon's** suggestion was a good starting point. **Mr. Holland** said he agreed with **Mr. Donlon's** suggested clarity.

Mr. Siersema said that the elevator should be in use and not just "operational".

Mr. Bland suggested that subsection (a)(1) should require an "operating" elevator instead of an "operational" elevator. The committee agreed with the improvement. He then stated that the regulation would need information on the requirements for the next and subsequent landings of the CPE. He said that the proposal should say something along the lines of "No work shall be performed beyond 36 feet of the uppermost accessible landing of the CPE."

Mr. Donlon suggested moving the requirements for subsequent landings to subsection (d). **Mr. Bland** agreed.

Mr. Holland said that the text would need to take into account large open rooms like those found in convention centers where a floor does not exist at 36 feet in height. He said these situations could be addressed in the exceptions.

Mr. Wheaton said that we needed to add “three floors or 36 feet” to the text.

Discussion on Section 1630(a)(2)

(a)(2) 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, mechanical screens, flag poles and or similar attachments.

Mr. Donlon said that “wind screens” should be added to (a)(2) in the list of exclusions for a building’s height.

Mr. Denning said the term “mechanical screens” is consistent with other orders and should be used. The committee agreed.

Mr. Bland suggested the term “ground level” be defined in the definitions section when it is created.

Discussion on Section 1630(a)(3)

(a)(3) In excavations, the elevator shall be installed and operational as soon as practicable after any portion of the excavation has reached its ~~the total depth of the excavation has been reached,~~ sufficient lagging or shoring has been installed to support the elevator, and the top of the footing slab has been placed. The intent of this subsection is to...

Mr. Denning said (a)(3) is ambiguous and should be removed. **Mr. McCrary** agreed with **Mr. Denning**.

Mr. Donlon said that a foundation is necessary to support the CPE, whether permanent or temporary. He said that a CPE is not necessary while digging down until a floor is reached.

Mr. Fabbro said he runs into this problem often where there is no landing to land on for the CPE. He said that once a foundation exists, the CPE can be installed, but not before then. He said that exceptions are necessary.

Mr. Denning said that he understands **Mr. Fabbro’s** concern. **Mr. Denning** said that alternative access requirements would apply here.

Mr. Donlon said that the rulemaking should attempt to require less alternative access and more concrete requirements. He suggested that the CPE be required as soon as the depth of the excavation is reached.

Mr. McCrary said he was fine with allowing the CPE to be installed after the depth of the excavation is reached, but he has concerns that a contractor would delay the installation of the CPE because a part of the entire excavation was not completely reached. He said that some contractors would game the system to delay installation.

Mr. McClelland recommended requiring that the CPE be required to be installed after any portion of the excavation's total depth is reached. The committee agreed with the text "any portion".

Mr. Denning said that some sites will dig to a point which is not the final depth and not complete the full depth for several months. He said that the CPH would be needed before the final depth was reached.

Mr. Bland said that everyone in the committee understands the intent of the regulation even if we can't find the perfect language. He suggested adding a statement of intent to the regulation to explain that the CPE must be installed.

Mr. Denning said that an exception could be made for excavations that are continually dug. He said he would consider language and get back to the committee.

Steve Johnson (Associated General Contractors of California) said that we needed to clarify where the measurement for the depth of the excavation should be measured from.

Mr. Donlon said that the blueprints for the building will show ground level and they can be used to determine the depth.

Mr. Fabbro said that the requirements for measuring the depth of the excavation are already included in the regulation.

Mr. McCrary said that the definition could use work because some contractors designate a construction entrance at a false location in an attempt to avoid the CPE requirements.

Mr. McCune said that the primary construction entrance is an important term to define.

Mr. Denning said that more clarity could be helpful in enforcing the regulation.

The committee listed out various definitions that would be helpful to define in the regulation:

- Ground level
- Landing
- Working level
- Height
- Depth
- Operating
- Primary construction entrance
- Unusual site conditions
- Unusual structural configuration

The committee said they would define the definitions later on in the rulemaking process.

Discussion on Exceptions to Section 1630(a)

EXCEPTIONS to subsection 1630(a):

(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.*~~

(2) Work locations with unusual site conditions or structure configurations which provide alternate means of access in accordance with section 1630(c).

(3) Structures, such as parking structures, where the design allows vehicles to be driven to the upmost working level and a clear travel path is maintained.

(4) A permanent passenger or freight elevator meeting the requirements of article 14, section 1604.4 provides service to all required landings and the uppermost level the elevator is designed to service. [If not included in (a) above.]

~~*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.*~~

Mr. McCune asked if “unless or until” in subsection (a) constituted an exception. **Mr. Bland** said that making the “unless or until” text into an exception may make the regulation more clear. He suggested moving the text to the exceptions below subsection (a). The committee agreed with the suggestion, except for **Mr. Holland**, who said that he preferred the “unless or until” language in the proposal.

Mr. McClelland said that parking structures are not good candidates for exceptions to the CPE requirements. He said that the structures can be designed to accommodate vehicles, but when shoring is present, access to the building is limited. He added that while removing the shoring, it is unsafe for others to be in the area. He suggested that exception three be removed.

Mr. Denning agreed with **Mr. McClelland**. He said that the exception would circumvent the alternate access requirements of the regulation.

Cassie Hilaski (Nibbi Brothers – NOT ON SIGN IN SHEET) said that the requirement for maintaining “a clear travel path” would address the concerns of **Mr. Denning** and **Mr. McClelland**.

Mr. McCune said that it was a myth that parking structures did not require CPE access. He said that driving to the top can be a long distance and can require the injured employee to have to walk out of the area. He said that if this provision is included in the regulation, it should be limited to “something like 4 stories.”

Mr. Donlon said that he has seen parking structures use carts for access many times. He said that the parking structures at Sacramento State University used this method and the workers liked being able to sit as they were taken up the ramps instead of having to stand in an elevator. He said that using the carts allowed rescue personnel to drive closer to the injured person in many cases. He said that he was open to limiting the height of the structures that employ carts for access or requiring a rescue plan for the site. He said that parking structures are not unusual structures. He said that forklifts are often used on parking structure projects to move materials up and down. He said that the forklift requires a clear path of travel or it would not be able to be used. Finally he added that a structural member is left out of the parking structure in order to install the CPE.

Mr. Holland said that using ramps for access in certain situations should be allowed. He said that paramedics require special training to safely carry injured workers to an elevator and that it is a safer practice to evacuate injured workers using a cart.

Mr. Bland suggested that ramp access be moved to the alternate access section of the proposal so that it does not apply to all parking structures without consideration of specific circumstances.

Mr. Fabbro reiterated that forklifts are used in building parking structures and the lifts require a clear path of travel. He said the regulation could require a specific number of shuttles to carry employees up and down. He said that a CPE carries risk as do all construction tasks.

Mr. Donlon said that he was willing to discuss additional requirements, but did not want to remove the concept from the proposal entirely. He said that in the past, ramps were regularly used for access.

Brian Miller (Rudolph and Sletten) explained that when building a cast-in-place cement parking structure the elevator does not go all the way to the top until the structure is complete. He said installing the missing structural member after the rest of the building is in place is a hazardous process. He said that with steel buildings, the work to install permanent elevators can begin early in the process, but with cast-in-place structures, the installation of the permanent conveyance cannot begin until the entire structure is complete, due to shifting of the building as the concrete cures. He said he agreed that specific requirements should be in place to govern the use of the ramps.

Mr. McClelland said that “a clear path” is a nebulous term. He said he agrees that forklifts are used throughout the project, but that the path is only required to be about four feet wide. He said that the path is marked off with red tape to keep people out of certain areas because travel through the red tape areas is unsafe. He said that he has significant reservations with the way the text reads now.

Mr. McCrary said that manlifts have been required on parking structures since the regulation existed. He said that using carts to shuttle 50 employees to work is a challenge. He said that there is no reason not to have manlifts on parking structures.

Mr. Donlon said that adding the CPE to a parking structure adds a lot of risk to the project: installing, maintaining, removing the CPE, and installing the structural member after the other pours are complete. He said that as a risk manager, he wants to reduce risk in the construction process. He said that if we hold employers accountable, ramps can be used safely as they commonly were in the past.

Mr. Berg said that too many carts would create congestion on the ramps. He said that if each employee had a cart there would be too many for the ramps to be used safely. **Mr. Donlon** responded that 10-person carts could be used and that a typical CPE also carries 10 passengers.

Mr. McClelland said that he understands **Mr. Donlon's** concerns, but in his years and years of experience, the manlifts are the most effective means of providing safety to employees. He said that he is not opposed to discussing requirements to allow the practice, but in its current form, he continues to have serious reservations with the practice.

Mr. Denning said that if concrete structures were intended to be included in the list of unusual structures that required or alternate access they would be listed in the standard. He opined that by discussing their addition now, we were weakening the standard.

Mr. McCrary said that we should keep manlifts as a requirement for parking structures because the structures are not unusual and do not meet the requirements for needing alternate access. He said that exception three should be removed from the proposal.

Mr. Bland said that the requirements should only apply to concrete parking structures and not all concrete buildings.

Mr. Donlon said that he would discuss the issue with the members he represents and develop language to address the concerns raised today.

Mr. Siersema said that during the pandemic, only one employee was allowed to ride up in the CPE at a time. He said that the proposal should be flexible to address similar situations in the future.

[1004 53:57] Mr. Bland suggested adding more detail to exception one to clarify that scaffolds and falsework do not always mean that a CPE is not needed for the site.

Discussion on Section 1630(b)

(b) Construction passenger elevators shall be installed, operated and maintained in compliance with Article 14 of the Construction Safety Orders.

Mr. McCune said that the word “designed” should be added to list of requirements that must be in accordance with article 14.

Mr. Bland said that employers do not design the CPE. He said that using and maintaining the hoist was the employer’s responsibility, but the employer should not be responsible for designing the hoists.

The committee agreed to leave “designed” out of the requirements, concluding that Cal/OSHA can discuss which CPE is used during the permit conference and ensure that it complies with article 14.

Discussion on Section 1630(c)

~~(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.~~

(c) Prior to use, the employer shall substantiate in written form alternate means of access acceptable to the Division for unusual site conditions or structure configurations. For the purposes of this section, unusual site conditions and structure configurations are considered to exist at those work locations where the installation or use of a construction passenger elevator is not feasible.

NOTE: Examples of unusual site conditions or structure configurations include bridges, steel tank erection, dams, water towers, antennas, cooling towers, refinery towers, stacks, prefabricated parking structures, tower cranes, etc.

Ms. Hilaski said that the text describing unusual site conditions and structures should be moved to the definitions of those terms instead of included in the body of the regulation.

Mr. Donlon suggested defining the terms instead of listing examples of the terms.

Mr. Welsh said that we should not be enslaved by the word “unusual.”

Mr. McClelland agreed. He added that “feasible” is also not well defined. He suggested replacing that word as well. He said that some bridges, including the San Francisco Bay Bridge, have a CPE. He said that engineering restrictions should be used to determine the need for

alternate access and that an engineer should be required to make the determination that a CPE is not able to be installed.

Mr. Berg said that Cal/OSHA supports using a different word than feasible. **Mr. Donlon** agreed that “feasible” could be improved.

Mr. Welsh said that alternate access plans should be allowed if they provide safety equivalent to an elevator.

Mr. Bland said that being equivalently safe is not enough or we risk replacing the CPE with the alternate means unnecessarily. He said that for projects where the CPE does not make sense, alternate access should be considered. He said that he needed to leave the meeting now, but would consider new language and get back to the committee. He said he would get back to the committee within two weeks from today.

Mr. McClelland said that the burden should be on the employer to show that the alternate means of access are equivalently safe to a CPE.

Mr. Fabbro said that he wanted specificity in the regulation to help make the determination for alternate access.

Mr. Donlon said that site conditions also needed to be addressed because they can prevent the CPE from being installed. He said that a building can be surrounded by other buildings, power lines and a railroad track and, in those situations, providing access equivalent to a CPE is not possible. But neither is installing a CPE. He added that sometimes site conditions delay the installation as well.

Mr. Siersema asked that leading cast in place concrete cores be added to the list of unusual structure configurations. **Mr. Berg** said that it is his understanding that a CPE can be installed for such structures. **Mr. McCrary** agreed.

Mr. Montijo said that he has installed a hoist on concrete cores in the past.

Mr. Denning said that it could be problematic to list specific structures as unusual because it could lead contractors to think they are exempt from the standard. **Mr. McCune** said that many of the structures listed can use a CPE under certain conditions.

Mr. Welsh said that the examples of unusual structures could state that they “may be” considered unusual instead of declaring that they are unusual. He said that it should be the employer’s responsibility to prove that the structure is unable to have a CPE installed.

Mr. Montijo said that he has never been unable to install a manlift on a structure. He said that the examples listed could all accommodate a CPE if needed.

Discussion on Section 1630(d) and (d)(1)

(d) Landings shall provide safe access to be provided for, the and [be] serviced by, a passenger elevator on or in buildings or structures at the upper-most floor and at intervals not to exceed 3 floors or 36 feet, whichever is less. The landing shall provide safe access to the working level. No work shall be performed above [3 floors or] 36 feet [whichever is less] from the uppermost accessible landing of the CPH. as soon as the structural integrity of the elevator can be maintained as a result of the building's or structure's design.

~~(1) Landings shall be provided for, and serviced by, a passenger elevator when the height of a building or structure initially reaches 3 floors or 36 feet whichever is less.~~

Mr. Berg said that roofs should also be addressed in subsection (d). He said that he didn't want the CPE to stop "three feet below the roof."

Mr. Donlon said that we need to add language to address when the floor needed to be jumped. He said that the intent of the text is to ensure that a landing is present for employees to exit a CPE.

Mr. Denning said that the landing should be provided as soon as possible. He said that the proposed language needed work.

Mr. Welsh suggested the text require that a landing provide safe access to the working level.

Mr. Holland said that the CPE had to follow the work. He said that it shouldn't be required before it had the necessary support.

Mr. McCrary said that the CPE comes with the necessary plan for its installation. He said the integrity is already planned for.

Mr. Holland said that **Mr. McCrary** was correct for steel structures, but not for concrete structures.

Mr. Berg said that references to structural integrity could be used as escape clauses to allow employers to delay the installation of the CPE.

Mr. Donlon said that employers do not go out of their way to slow down production on a building. He suggested that even "bad players" aren't doing that. He suggested the text read

“The landing shall provide safe access to the working level.” He suggested that a definition for “landing” could help resolve concerns about access.

Ms. Hilaski said that the landing should be installed when there is work to do at that level. She said that employers should be allowed to perform the work to install a landing before the CPE is required.

Mr. Donlon said that requiring the CPE for work beyond 36 feet should be sufficient.

Discussion on Section 1630(d)(2)

(2) In excavations, the first landings to be installed shall be at the top and bottom of the excavation. ~~the first landing installed above the bottom floor of the excavation shall be located at the top of the excavation grade level.~~ Additional landings shall be installed as soon as practicable when additional working levels are established.

Mr. Miller said that the CPE is installed from the bottom of the excavation up.

Mr. Donlon said that as the structure is built up within the excavation, additional landings are added.

Ms. Hilaski suggested that the first landings to be installed should be at the top and bottom of the excavation. The committee agreed.

Discussion on Section 1630(d)(3)

(3) Landings are not required at ~~to~~ any level of a building or structure where no working level floor exists.

Mr. Wheaton suggested that landings be required “at” the building levels instead of “to”.

Mr. Donlon said that (d)(3) was necessary to avoid having to go to Cal/OSHA for permission each time the circumstance arises.

Mr. Berg suggested changing the word “floor” to “working level”.

4. Conclusion.

The Acting Chair said that David Kernazitskas would prepare the minutes of the meeting and likely schedule a second meeting to discuss the unresolved items on the agenda. She reminded them of their follow-up assignments regarding the development of proposed text and definitions. The Acting Chair adjourned the meeting at 4:00 p.m.