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OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD

Richard Manuel
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Roseville, CA, 95678

Occupational Safety and Health Standards Board
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Sacramento, CA 95833

Dear Occupational Safety and Health Standards Board:

Please find enclosed a petition for consideration and request to amend the language regarding California Code of Regulations, Title 8, Chapter 4, Section 1710(l) Temporary Flooring – Skeleton Steel Construction in Multistory Buildings. This petition and request is filed on behalf of Lancaster Burns Construction (LB Construction) because section 1710(l) requires an amendment to clarify when temporary flooring is not required as it would create a greater hazard.

Please contact me with any questions or concerns you may have.


Sincerely,




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LB Construction's Petition to Amend Regulation

Lancaster Burns Construction hereby petitions the Occupational Safety and Health Standards Board to amend Title 8, California Code of Regulations, Section 1710(I) Temporary Flooring – Skeleton Steel Construction in Multistory Buildings

LB Construction shares Cal OSHA's goal of promoting process safety. OSHA's historical data has shown Fall Hazards leading the construction industry significantly over the past five years, taking the charge as number one amongst the focus four hazards leading to fatal accidents. Section 1710(I)(7) has a very significant gray area that undermines safety in a modern construction society, where it creates numerous risks. Secondly, this regulation opens windows of opportunity to utilize new technology and equipment to eliminate fall practicality percentages significantly.

Reason(s) for request (The regulation is ambiguous as to when temporary decking is not required which creates a gap in coverage and would be more hazardous to structural steel erectors if temporary flooring were required when connecting skeleton structural steel from a compliant aerial lift with fall protection. Also, Lancaster Burns Construction almost received a citation due to the ambiguity in the regulation, but did not due to utilizing Consultation, however enforcement states we were still out of compliance.

1710(I) - 1710(I)(7) -Where skeleton steel is being erected, a tightly planked and substantial floor shall be maintained within two stories or 30 feet, whichever is less, below and directly under that portion of each tier of beams on which any work is being performed.

The following Sequence of events occurred before, and at our project that led to confusion and nearly a citation over the fact that this statute needs clarification or amendment:

Cal OSHA's Consultation Division contradicted themselves on whether section 1710(I)(7) requires temporary flooring during steel connecting of columns and beams from an aerial lift.

- 1) On March 20, 2019 Cal OSHA's consultation area manager John Hussman was contacted to receive interpretation of language for 1710(I)(7). In which he advised Lancaster Burns Construction that Skeletal Structural Steel Erection from an aerial lift with proper fall protection was Cal OSHA compliant for this project.
- 2) Our General Contractor requested Cal OSHA Consultation to visit our project on April 24, 2019 in which a representative from Cal OSHA, Susan Pipes, stated that we are out of

compliance with section 1710(l)(7). Cal OSHA's Area Manager John Hussman was present, and once again stated we were compliant with the regulation. After a day of review, Cal OSHA Consultation called to let us know their opinion had changed and we were out of compliance with the regulation.

- 3) Therefore, the regulation is ambiguous and requires clarification as to when temporary flooring is not required.

Cal OSHA's Research and Standards -

- 4) Principal Safety Engineer Jason Denning's states we were in compliance and that we should not receive a citation.

Cal OSHA's Enforcement Unit -

- 5) Cal OSHA's Enforcement Associate Safety Engineer, Anthony Galvez arrived Friday April 26, 2019. Anthony Galvez stated we are out of compliance but is unable to provide clarification to the standard and says its due to the following possible reasoning; Overhead Protection, Fall Protection, Structural Stability. When asked if the erection area is barricaded to prevent access and connections are being performed from aerial lifts if we would be compliant, he stated that we would be compliant, once again contradicting the entire reason of his visit.

Due to this recent compliance incident with Cal OSHA's Consultation Unit, Cal OSHA's Enforcement Unit, and Research and Standards we have recently discovered many objections to the understanding of the language of the referenced standard. LB Construction has been mis-directed by multiple Cal OSHA representatives regarding this regulation. LB Construction objects to the standard that 1710(l)(7) ***Where skeleton steel is being erected, a tightly planked and substantial floor shall be maintained within two stories or 30 feet, whichever is less, below and directly under that portion of each tier of beams on which any work is being performed.*** LB Construction and our OSHA advisors believe that this section has no relation to connecting of steel in multistory buildings or structures where the building has been professionally engineered and does not rely on metal decking or planking for structural integrity during the erection process. That this standard is interpreted as Fall Protection or Overhead Protection for "Metal Decking," in which Temporary Flooring is not needed for structural steel connectors if you are connecting structural steel from Aerial lifts or Mobile Elevating Work Platforms (Boom Lifts, Scissor Lifts).

LB Construction believes that this standard undermines safety for this process as temporary flooring does not eliminate fall hazards and creates a more dangerous environment for structural steel connectors by forcing them to climb (Shinning of Columns), walk on steel (Coon or walk the bottom flange) in order to connect.

Sections 1710(m)(1)(A) and 1710(m)(1)(B) Working and Traveling on the Skeleton Steel of Multistory Buildings or Structures “Connecting” does not state that temporary flooring is required, in fact the standards state the following:

- (A) When connecting beams or other structural members at the periphery or interior of a building or structure where the fall distance is greater than two stories or 30 feet, whichever is less, iron workers shall be provided with and use a personal fall protection system as described in Article 24 tied-off to either columns, pendant lines secured at the tops of columns, catenary lines, or other secure anchorage points.
- (B) (B) At heights over 15 and up to 30 feet above a lower level, connectors shall be provided with a personal fall arrest system, positioning device system or fall restraint system and wear the equipment necessary to be able to be tied off; or be provided with other means of protection from fall hazards in accordance with subsection (m).

LB Construction does not believe that all Skeleton Steel Construction in Multistory Buildings should be exempt of temporary flooring, and that all regulations have necessary limitations to follow, but with the following safety rules in place regarding a project three stories in height with roof, we do not believe we are out of compliance for 1710(L)(7):

Erection of Steel Multistory Buildings compliant to Article 29. Erection in Construction sections 1709(a), 1709(b) and 1709(D)

- a) (a) No building, structure, or part thereof, or any temporary support or scaffolding in connection therewith shall be subjected to any load beyond its design load strength, unless the employer determines, based on information received from a qualified person who is experienced in structural design, that the structure or portion of the structure is capable of safely supporting the load. For the purpose of this subsection, the design load strength refers to the load bearing capacity of a structural member(s) computed on the basis of the allowable stresses which are assumed in the design.
- b) Bracing.
1. Trusses and beams shall be braced laterally and progressively during construction to prevent buckling or overturning.
 2. The first member shall be plumbed, connected, braced and/or guyed against shifting before succeeding members are erected and secured to it.
 3. The total system shall be adequately braced and stabilized to the foundation, to suitable anchors buried in the ground, or by other equivalent method(s).

4. Beams, trusses and other material being lifted and placed by cranes or other hoisting apparatus shall not be released from the crane or hoisting apparatus until the person detaching the load has verified that the load has been secured or supported to prevent inadvertent movement.

d) **Erection Guide for Trusses and Beams Over 25 Feet Long.** The employer shall provide an erection plan and procedure prepared by a civil engineer currently registered in California which shall be followed and kept available on the job site for inspection by the Division.

In addition to the erection guide prepared and stamped by a California civil engineer for buildings 3 stories in height with a roof (46' maximum as per standard boom lifts reach capabilities) stating the buildings structural integrity adheres to Cal OSHA's regulations regarding structural movement, anchorage, bracing and connecting, showing that temporary flooring is impractical during the erection process and that the following is equal or greater to the standard written for working safely:

- Entire perimeter of structure barricaded to prevent workers working below structural steel being erected, implemented under supervision of a competent person.
- Once structural steel is hoisted and rigged to appropriate connecting locations, workers elevate to the point of connection utilizing mobile elevating work platforms and aerial lifts. The suspended load shall not be released from the hoisting lines until the members are secured with at least 2 bolts per connection, same size and strength as the erection drawings, drawn up wrench-tight or the equivalent as specified by the project structural engineer of record.
- After connections are complete, workers operating the aerial lifts will move away until the next section of the sequence is to be rigged and hoisted, in which they will raise into place to connect again once the steel is in position.

This process not only utilizes the hierarchy of controls, it practically eliminates exposure to the potential falls of Shinning the columns and Walking the steel flanges by being tied off accordingly and protected within the guardrails of each lift. Although there are fall prevention and arrest systems available to walk steel, we feel this practice not only adheres with fall protection standards of Title 8 it also helps prevent hazards 3 and 4 of the focus four; Struck by and Caught in Between being protected inside the guardrails of the lifts.

Section/Subsection reference to existing Title 8 Safety Order:

Subchapter 4. Construction Safety Orders
Article 29. Erection in Construction

Section 1710(l). Temporary Flooring -- Skeleton Steel Construction in Multistory Buildings.

Suggested changes(s) to existing Safety Order (exact new wording):

(l) Temporary Flooring - Skeleton Steel Construction in Multistory Buildings.

(1) The derrick or erection floor shall be solidly planked or decked except for access openings. Planking or decking of equivalent strength, shall be of proper thickness to carry the working load. Planking shall be not less than 2 inches thick full size undressed, and shall be laid tight. Both planking and decking shall be secured.

(2) On buildings or structures not adaptable to temporary floors, and where scaffolds or approved fall protection is not used, safety nets shall be installed and maintained whenever the potential fall distance exceeds two stories or 30 feet, whichever is less.

(3) The exposed edges of all temporary planked and metal decked floors at the periphery of the building, or at interior openings, such as stairways and elevator shafts shall be protected by a single 3/8-inch minimum diameter wire rope of 13,500 pounds minimum breaking strength located between 42 and 45 inches above design finish floor height. Other guardrail protection may be used if equal fall protection is provided.

NOTE: If the periphery fall protection is intended to be used as a catenary line, it shall meet the provisions of Section 1710(m)(4).

(4) Midrail protection.

(A) Midrail protection shall be installed as soon as the metal decking has been installed; and

(B) Shall be installed prior to the decked area being used by trades other than the steel erector or decking crew.

(5) Installation of Metal Decking.

(A) Except as provided in Section 1710(n), metal decking shall be laid tightly and immediately secured upon placement to prevent accidental movement or displacement.

(B) During initial placement, metal decking panels shall be placed to ensure full support by structural members.

(C) Framed metal deck openings shall have structural members turned down to allow continuous deck installation except where not allowed by structural design constraints or constructability.

(6) Metal decking holes and openings shall not be cut until immediately prior to being permanently filled with the equipment or structure needed or intended to fulfill its specific use and which meets the strength requirements of Section 1632(b) of these orders, or shall be immediately covered.

(7) Where skeleton steel is being erected, a tightly planked and substantial floor shall be maintained within two stories or 30 feet, whichever is less, below and directly under that portion of each tier of beams on which any work is being performed.

EXCEPTION to subsection 1710(l)(7). Temporary flooring is not required when the area below steel erection is barricaded to prevent access and connecting operations are being performed from equipment at ground level utilizing Mobile Elevating Work Platforms and Aerial Lifts.

NOTE: Where a planked floor is not practical, subsection (l)(2) of this section applies.

(A) When gathering and stacking temporary floor planks, the planks shall be removed successively, working toward the last panel of the temporary floor so that the work is always done from the planked floor.

(B) When gathering and stacking temporary floor planks from the last panel, the employees assigned to such work shall be protected by an approved personal fall protection system attached to a catenary line or other substantial anchorage.