

**OCCUPATIONAL SAFETY  
AND HEALTH STANDARDS BOARD**

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FINAL STATEMENT OF REASONS

## CALIFORNIA CODE OF REGULATIONS

TITLE 8: Chapter 4, Subchapter 4, Article 20, Section 1635, and  
Article 29, Section 1710 of the Construction Safety Orders (CSO).

Structural Steel Erection Safety Standards

There are no modifications to the information contained in the Initial Statement of Reasons except for the following sufficiently related modifications, which are the result of public comments and further Board staff evaluation of the proposal.

Section 1710(h)(5), Landing and placing loads.

Section 1710(h)(5) contains provisions for the landing and placing of loads during structural steel erection.

Subsection (h)(5)(D)

Subsection (h)(5)(D) states that no bundle of decking may be placed on steel joists until all bridging has been installed and anchored and all joist bearing ends attached, unless the employer meets six specific conditions listed in subsections (h)(5)(D)1. through (h)(5)(D)6. The specific provisions in the sixth condition, outlined in subsection (h)(5)(D)6., state that placement of the bundle of decking shall be in accordance with subsection (h)(5)(E). Subsection (h)(5)(E) requires that the edge of the construction load shall be placed within one foot of the bearing surface of the joist end. Language in subsection (h)(5)(D)6. referencing the requirements of subsection (h)(5)(E) is proposed for deletion and replacement by the actual wording of subsection (h)(5)(E). This is an editorial change only for this subsection and is necessary because subsection (h)(5)(E) is proposed for deletion in the modifications explained in the following paragraphs.

Subsection (h)(5)(E)

Subsection (h)(5)(E) requires the edge of the construction load to be placed within one foot of the bearing surface of the joist end. As mentioned in the paragraph above, this requirement is currently one of six conditions in subsection (h)(5)(D) that must be met when a decking bundle is placed on steel joists without the bridging fully installed and anchored. During discussions at the public hearing it was noted that a common safe working practice for metal decking crews is to have the decking bundles landed or placed on the steel joists with enough space or room to

pull the first sheet of decking off the bundle to make a safe work platform for the deckers to stand on that is located between the deck bundle and the joist bearing ends. Because the decking bundle is nearly three feet wide, the regulation (requiring construction loads to be placed within one foot of the bearing surface) does not permit enough space to place and secure the first decking sheet for use as a work platform.

The intent of this regulation is primarily to ensure the stability of the structure for landing decking bundles when the bridging has not been installed and anchored as outlined in the provisions of subsection (h)(5)(D). Further, Section (h)(5)(A) already requires the employer placing a load on steel joists to ensure that the load is distributed so as to not exceed the carrying capacity of any steel joist. Therefore, a modification is proposed to delete subsection (h)(5)(E) and move its verbatim language into subsection (h)(5)(D)6. The proposed modification is necessary to permit metal decking crews sufficient space to install a safe working platform after deck bundles have been landed on steel joists that are fully bridged and anchored.

#### Section 1710(m), Working and Traveling on the Skeleton Steel of Multistory Buildings or Structures.

Subsection (m) provides fall protection requirements for ironworkers involved in structural steel erection work.

#### Subsection (m)(3)

Subsection (m)(3) pertains to fall protection for ironworkers traveling at the periphery or interior of a building. Subsection (m)(3)(A) as proposed at the January 16, 2003 Public Hearing, states when moving point to point or releasing slings, and the fall distance is greater than 30 feet or two stories, whichever is less, *connectors* shall coon<sup>1</sup> or walk the bottom flange or may walk the top flange if tied-off to catenary lines or use other fall protection in accordance with Article 24. Subsection (m)(3)(B) contains the same provisions as subsection (m)(3)(A) for workers *other than connectors* when the fall distance is greater than 15 feet.

In the steel erection construction process, bundles of decking sheets/panels are landed on steel joists so that the decking sheets can be spread and secured to form the floor at each building level. The decking bundles are nearly three feet wide and connectors or decking crew members must walk out on top of the deck bundle after it is landed in order to release the hoisting sling.

Unless the decker or connector is cooning a beam, fall protection is required when working at heights greater than 15 feet above a lower level for deckers and heights greater than 30 feet or two stories, whichever is less, for connectors. If the decking bundle is landed on joists or structural members at or near 15 feet in height from the ground or nearest floor level, the height of the decking bundle itself would be slightly over the 15 foot trigger height for fall protection and require deckers to install or use fall protection just to walk the top surface of a nearly 3 foot wide deck bundle to release the sling. The connector would encounter a similar situation

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<sup>1</sup> To “coon” a beam means to straddle and move horizontally on a beam while walking on the bottom flanges.

releasing slings on deck bundles that are landed on joists or structural members at or near 30 feet in height from the ground or nearest floor level.

Therefore, upon further evaluation of the proposal, modifications are proposed for both subsections (m)(3)(A) & (B) to provide that connectors and other than connectors respectively, may walk the top surface of securely landed decking bundles. The proposed modifications are necessary to permit ironworkers to walk the top of securely landed decking bundles (approximately 30 to 36 inches wide) for the short duration task of releasing slings.

## SUMMARY AND RESPONSE TO ORAL AND WRITTEN COMMENTS

### I. Written Comments

Mr. Richard Zampa, President, District Council of Iron Workers of the State of California and Vicinity, by letter dated January 6, 2003.

#### Comment

Mr. Zampa wrote on behalf of the District Council of Iron Workers of the State of California and Vicinity representing over 18,000 ironworkers to express support for the adoption of the proposal. Mr. Zampa commented that he has personally been involved in the rulemaking process for the revision of the steel erection standard from the inception, and participated in numerous Cal/OSHA advisory committee meetings. Mr. Zampa expressed that it was his belief that the rulemaking process was conducted fairly, and that the process allowed all affected parties to participate and express their opinion.

Mr. Zampa noted that the District Council of Iron Workers of the State of California and Vicinity, and the union steel erection contractors are the primary stakeholders affected by the standard and they urged the Board to adopt the proposed standard for Title 8, Section 1710 for structural steel erection.

#### Response

The Board thanks Mr. Zampa and the District Council of Iron Workers of the State of California for their support of the proposal and for their participation in the Board's rulemaking process.

### II. Oral Comments

Oral Comments received at the January 16, 2003 Public Hearing in Los Angeles, California.

Mr. Craig Cindell, Field Manager, Strocal Inc.

Mr. Cindell expressed support for the proposed amendments.

Response

The Board thanks Mr. Cindell for his support of the proposal and for his participation in the Board's rulemaking process.

Mr. Kevin Bland, Andrade & Associates

Mr. Bland expressed his support for the proposal and thanked George Hauptman of the Standards Board for chairing the advisory committee meetings.

Response

The Board thanks Mr. Bland for his support of the proposal and for his participation in the Board's rulemaking process.

Mr. Jack Holt, Business Manager, Iron Workers Local Union 433.

Mr. Holt urged the Board to adopt the proposed amendments and expressed his belief that the standard is fair to all.

Response

The Board thanks Mr. Holt for his support of the proposal and for his participation in the Board's rulemaking process.

Mr. Steve Rank, Director of Safety and Health, District Council of Ironworkers Safety Institute

Mr. Rank expressed his support for the adoption of the proposal. He stated that over the last year he has worked closely with the Division of Occupational Safety and Health (Division) and has formed a partnership with the Division to provide training to their personnel. He recently concluded the last of seven training programs and has trained over 300 compliance officers, legal staff, consultation personnel, and Division personnel in the High Hazard Unit.

Response

The Board thanks Mr. Rank for his support of the proposal and for his participation in the Board's rulemaking process.

Dialogue Between Board Members and the Public

Liz Arioto, Board Member

### Comment No. 1

Ms. Arioto commented that Section 1710(h)(5)(E) requires construction loads to be placed within one foot of the bearing surface of the joist end. She stated that this regulation prevents deckers from performing the safe work practice of pulling the first sheet off the deck bundle to make a work platform. She asked Mr. Steve Rank, District Council of Ironworkers Safety Institute if he believed that this was problematic and needed clarification in the regulation.

Mr. Rank responded that the issue came up during the training for this standard. He stated that the requirement for bundles of decking to be landed within one foot of the bearing surface addresses situations when the bearing surface or steel joists may not be fully bridged and welded at each end. In those situations, special caution is required as to where the load should be landed. He stated that as Board Member Arioto pointed out, it is a safe practice to have enough room to pull the first sheet off the bundle to make a work platform. He agreed with Board Member Arioto that this is something they should and could easily work out. He stated that this is an item that has been discussed with Board staff and does need to be clarified.

### Response

Board staff concurs with the comments above that the requirements of Section 1710(h)(5)(E) prevent the common and safe work practice of placing the first sheet of decking from the bundle to make a work platform for those employees installing the metal decking. The intent of Section 1710(h)(5)(E) is primarily to ensure the stability of the structure for landing decking bundles when the bridging has not been installed and anchored as outlined in the provisions of proposed subsection (h)(5)(D). Further, Section 1710(h)(5)(A) already requires the employer placing a load on steel joists to ensure that the load is distributed so as to not exceed the carrying capacity of any steel joist. Therefore, a modification is proposed to delete subsection (h)(5)(E) and move its verbatim language into subsection (h)(5)(D)6.

### Comment No. 2

Board Member Arioto asked Mr. Rank for the purpose of determining when the installation of midrail sections (of guardrail systems) are required, when would it be considered or determined that the installation of the decking is complete. The standard [Section 1710(l)(3)] requires that midrail protection shall be installed after the decking has been installed.

Mr. Rank responded that typically decking has been temporarily installed when two safety deck attachments per sheet are completed and that is usually done one bay at a time. He stated that they will rough lay a bay, square it up and then weld wind tacks or install safety deck attachments to keep the decking sheets from moving. After the sheets have been secured to the structure, then perimeter safety cables should be installed. Mr. Rank stated that they would install midrail sections after the decking has been secured to the structure.

Response

Amendments are already proposed in the regulatory text in Section 1710(I)(3) and to add new Section 1710(I)(4) to address when midrail protection is required to be installed. Therefore, Board staff does not believe modification to the proposal is necessary as a result of this comment.

DETERMINATION OF MANDATE

These regulations do not impose a mandate on local agencies or school districts as indicated in the Initial Statement of Reasons.

ALTERNATIVES CONSIDERED

The Board invited interested persons to present statements or arguments with respect to alternatives to the proposed regulation. No alternative considered by the Board would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the adopted action.