

## OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

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### INITIAL STATEMENT OF REASONS

#### CALIFORNIA CODE OF REGULATIONS

TITLE 8: Chapter 4, Subchapter 4, Article 20, Section 1635(b)  
and New Section 1635(c) of the Construction Safety Orders

#### Floor Openings (Steel Framed Buildings)

#### SUMMARY

This rulemaking action is initiated as a result of a Division of Occupational Safety and Health (Division) memorandum and Cal/OSHA Form 9-047, Request for New, or Change in Existing, Safety Order, dated June 22, 2005. In addition to the extensive steel erection provisions contained in the CSO, Section 1710, "Structural Steel Erection," the standards contained in CSO, Section 1635(b), provide additional Title 8 requirements for structural steel framed buildings erected in tiers or stories that are consistent with statutes in the California Labor Code, Sections 7250 through 7267. Proposed amendments for Section 1635(b) ensure that references to fall protection requirements include Section 1710 which contains requirements such as various trigger heights for the use of fall protection that are unique to steel erection construction.

Sections 1635(b) and 1710 require, among many other provisions, that the derrick or erection (working) floor of multistory buildings be solidly decked over except for access openings. Planking and decking must be secured against displacement by strong winds or other forces.

CSO, Section 1632(b) is applicable for the protection of floor openings where steel erection is taking place and requires that floor openings shall be guarded by either railings and toeboards, or by covers. Section 1632(b) also requires that floor opening covers be capable of safely supporting the greater of 400 pounds or twice the weight of the employees, equipment and materials that may be imposed on the cover. Section 1632(b) also provides that covers be secured in place, and bear a pressure sensitized, painted, or stenciled sign with legible letters not less than one inch high, stating: "Opening—Do Not Remove."

However, the Division states that there are steel erection work phases during which floor opening covers have to be repeatedly removed for welding, bolting, inspection, or for other intermittent access needs, and it is impractical to keep them bolted or otherwise affixed to the floor. An example of such activity would include the task of welding "moment connections" during steel erection activity. Moment connections require intermittent access through floor openings during the process of welding steel columns to connecting beams after columns and beams have been bolted together in order to provide additional stability to column and beam connections.

Therefore, proposed amendments in this rulemaking action include a new Section 1635(c) to address the placement and removal of covers when work of this nature is taking place.

### SPECIFIC PURPOSE AND FACTUAL BASIS OF THE PROPOSED ACTION

#### Section 1635. Floors, Walls and Structural Steel Framed Buildings.

The provisions in Section 1635 address the installation of temporary flooring and structural stability of buildings under construction including certain fall protection criteria during the construction of multifloor buildings. Subsection (a) is applicable to multifloor buildings other than structural steel framed buildings and subsection (b) is applicable to structural steel framed buildings more than two stories high that are erected in tiers or stories and does not apply to steel framed buildings having large open spans such as auditoriums and gymnasiums.

#### Section 1635(b)(2).

Existing subsection (b)(2) states that there shall be a tight and substantial temporary floor within two floors below and directly under that portion of each tier of beams on which erection, riveting, bolting, welding or painting is being done. For operations of short duration of exposure to falling, fall protection shall be required as set forth in Article 24. An amendment is proposed to include that fall protection shall be required as set forth in Article 24 and Section 1710. This amendment is necessary so that the fall protection requirements specific to the vertical standard for structural steel erection activity, Section 1710, that includes trigger heights when fall protection is required, is applicable to subsection (b)(2).

#### Section 1635(b)(8).

Existing subsection (b)(8) states that floor planks that are temporarily removed for any reason whatsoever shall be replaced as soon as work requiring their removal is completed or the open area shall be properly guarded. The intent of this subsection is to mitigate the fall hazards created when floor planking removal creates openings in the floor. An amendment is proposed that would make this standard also applicable to metal decking that is temporarily removed. Metal decking is used more frequently on current steel erection job sites than planking. This amendment is necessary to ensure that employees are afforded the same protection from falling through floor openings and spaces created not only by the removal of planking, but also by the removal of metal decking.

#### Section 1635(b)(9).

Existing subsection (b)(9) requires that prior to the removal of temporary floor planks, employees shall be instructed by assigned supervision the steps to be taken to perform the work safely and in proper sequence. An amendment is proposed that would also make the provisions of this subsection applicable to the removal of metal decking. This amendment is necessary to ensure that the employees receive instructions to perform the work safely and in proper sequence during the removal of planking or metal decking.

Section 1635(b)(11).

Existing subsection (b)(11) states when gathering and stacking temporary floor planks from the last panel, the steel erector's personnel assigned to such work shall be protected by a personal fall protection system used in accordance with Article 24. A proposed amendment references Section 1710. This amendment is similar to that proposed for subsection (b)(2) and is necessary to clarify that the fall protection requirements specific to the vertical standard for structural steel erection activity, Section 1710, that includes trigger heights when fall protection is required, is applicable to subsection (b)(11).

Section 1635(b)(14).

Existing subsection (b)(14) requires that personal fall protection and nets shall be required in accordance with Article 24. A proposed amendment references Section 1710. This amendment is similar to that proposed for subsections (b)(2) and (b)(11) and is necessary to clarify that the fall protection requirements specific to the vertical standard for structural steel erection activity, Section 1710, that includes trigger heights when fall protection is required, is applicable to subsection (b)(14).

Section 1635(b)(15).

Existing subsection (b)(15) states that no person shall proceed with any work assigned to or undertaken by him, or require or permit any other person to proceed with the work assigned to or undertaken by either, unless the planking or nets required by this article are in place. An amendment is proposed to delete the gender reference and other unnecessary language in the standard. An additional amendment is proposed to include reference to metal decking to ensure that metal decking must also be in place before proceeding with assigned work. This proposal is necessary to eliminate unnecessary language and to ensure that planking, metal decking or nets, where required, are in place before work proceeds.

New Section 1635(c).

New subsection (c) is proposed to address special provisions applicable to floor openings. This proposed subsection states that Section 1632(b) applies to floor openings at locations where steel erection work is taking place, except where work in progress requires floor openings to be uncovered. For such work, the standard provides a number of requirements outlined in proposed subsections (c)(1) through (c)(7). This proposed new standard is necessary to permit floor opening covers to be removed for work in progress that requires access to floor openings provided that all the following provisions of this subsection are met.

New Section 1635(c)(1).

Proposed new subsection (c)(1) would require that the floor or working level where such work is in progress shall be barricaded to prohibit entry by unauthorized personnel and shall be under the

exclusive control of the steel erection employer. The proposed new standard is necessary to limit access to any floor opening to only authorized persons under the supervision of the steel erection employer.

New Section 1635(c)(2).

Proposed new subsection (c)(2) would require that the floor adjacent to floor openings shall be barricaded or the floor opening shall be covered when not attended by steel erection personnel. The proposed new standard is necessary to protect employees from inadvertently falling through a floor opening.

New Section 1635(c)(3).

Proposed new subsection (c)(3) would require that all planking and other materials used to cover floor openings shall be capable of safely supporting the greater of 400 pounds or twice the weight of the employees, equipment and materials that may be imposed on any one square foot area of the cover at any time. The cover shall have not less than 12 inches of bearing on the surrounding structure. This proposed new standard is necessary to ensure that covers have the strength and sufficient bearing on the surrounding structure to protect the opening.

New Section 1635(c)(4).

Proposed new subsection (c)(4) would require all floor opening covers to bear a sign stating, "OPENING-DO NOT REMOVE", in 2 inch high, black bold letters on a yellow background. This new provision is necessary to provide a conspicuous warning to employees to keep covers in place.

New Section 1635(c)(5).

Proposed new subsection (c)(5) would require the placement of covers to be verified by a qualified person prior to each shift and following strong wind conditions. This new provision is necessary to ensure that covers are appropriately in place to mitigate any hazard from a floor opening.

New Section 1635(c)(6).

Proposed new subsections (c)(6)(A) and (B) would require that workers be instructed and required to, 1) keep covers in place when not engaged in work requiring the opening to be uncovered, and 2) never remove a cover by walking forward or by stepping into an area where they cannot directly observe the surface their feet will touch. This proposed new standard is necessary to ensure employees receive instructions and follow safe procedures when covers are removed.

New Section 1635(c)(7).

Proposed new subsection (c)(7) would require that after work requiring floor openings to be uncovered has been completed and prior to allowing other trades in the work area, the guarding and covers for floor openings must meet the provisions of Section 1632(b). This proposed new standard is necessary to protect workers from fall hazards created by floor openings.

DOCUMENTS RELIED UPON

Memorandum, dated June 22, 2005, to Keith Umemoto, Executive Officer, Occupational Safety and Health Standards Board, from Len Welsh, Acting Chief, Division of Occupational Safety and Health with Cal/OSHA Form 9-047, Request for New, or Change in Existing, Safety Order.

This document is available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE ECONOMIC  
IMPACT ON SMALL BUSINESSES

No reasonable alternatives were identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small businesses.

SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal will not mandate the use of specific technologies or equipment. This proposal clarifies existing requirements and outlines procedures for protecting workers from fall hazards during work in progress in steel erection activities that require access through floor openings.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

No costs or savings to state agencies will result as a consequence of the proposed action.

Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

Impact on Businesses

The Board has made an initial determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states. Also, see the statement above under the heading "Specific Technology or Equipment."

Cost Impact on Private Persons or Businesses

The Board is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under “Determination of Mandate.”

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does not impose nondiscretionary costs or savings on local agencies.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standards do not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because the proposed amendments will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, these standards do not constitute a “new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution.”

The California Supreme Court has established that a “program” within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

These proposed standards do not require local agencies to carry out the governmental function of providing services to the public. Rather, these standards require local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, these proposed standards do not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

These proposed standards do not impose unique requirements on local governments. All employers - state, local and private - will be required to comply with the prescribed standards.

### EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendments may affect small businesses. However, no economic impact is anticipated. Also, see the statement above under the heading “Specific Technology or Equipment.”

### ASSESSMENT

The adoption of the proposed amendments to these standards will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

### ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that 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 proposed action.