

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

TITLE 8, DIVISION 1, CHAPTER 4

Day 1

Article 2. Definitions

Amend Section 1504 to read:

§1504. Definitions

(a) The following definitions shall apply in the application of these Orders.

Competent Person. One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

[AC to discuss the proposed definition in comparison Petitioner's language]

Cone and Bar Barricade (CBB). Multiple interconnected traffic cones and retractable lightweight pipe or rods arranged 6 to 10 feet from an opening to serve the following purpose:

1. Warn or limit access to a nearby opening and;
2. Demarcate areas where personal fall protection is required.

Note: See Appendix C, Plate C-38 and see definition of opening

Cone and Bar Barricade (CBB). The structure describe in subsection (l)(8) to prevent employees from moving too close to an access opening. *[Petitioners' language]*

[AC to discuss the necessity of Petitioners' proposed new term "access opening"]

Opening. An opening in any floor or platform, 12 inches or more in the least horizontal dimension. It includes: stairway floor openings, ladderway floor openings, hatchways and chute floor openings.

"Access opening" means any floor opening necessary to allow access to an incomplete level via ladders, stairs, scaffolds or other temporary means of access. *[Petitioners' language]*

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Article 20. Temporary Floors

Amend Section 1635 to read:

§1635. Floors, Walls and Structural Steel Framed Buildings.

(a) For multifloor buildings, other than structural steel framed buildings, the following shall apply:

(1) Every building shall have the joists, beams, or girders of floors below the floor or level where any work is being done, or about to be done, covered with flooring laid close together, or with other suitable material to protect workers engaged in such building from falling through joists or girders, and from falling substances, whereby life or safety is endangered.

(2) Every building which is of reinforced concrete construction, with reinforced concrete floors, shall have the floor filled in, either with forms or concrete, on each floor before the commencement of work upon the walls of the second floor above or the commencement of work upon the floor of the next floor above.

(3) Every building having wooden floors other than a steel frame building shall have the underflooring, if double flooring is to be used, laid on each floor within the time prescribed above for reinforced concrete floors. Where single wooden floors are to be used, each floor shall be planked over within the time prescribed above for reinforced concrete floors.

(4) If a span of a floor on a building exceeds 13 feet, an intermediate beam shall be used to support the temporary flooring, but spans not to exceed 16 feet may be covered by three-inch planks without an intermediate beam. The intermediate beam shall be of a sufficient strength to sustain a live load of 50 pounds per square foot of the area supported.

(5) If building operations are suspended and the temporary flooring required by this article is removed, the building shall be replanked upon the resumption of work so that every worker at work has a covered floor not more than two stories below.

(6) Planked floors on buildings shall be tightly laid together of proper thickness, grade and span to carry the working load; such working load to be assumed as at least 25 pounds per square foot.

(7) Fall protection shall be required in accordance with Article 24.

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(8) No person shall proceed with any work assigned to or undertaken or require or permit any other person to proceed with work assigned to or undertaken by either, unless the planking or nets required by this article are in place.

(b) For multifloor structural steel framed buildings more than two stories high, the following shall apply: These provisions shall apply to buildings erected in tiers or stories and shall not apply to steel framed buildings having large open spans or areas such as, mill buildings, gymnasiums, auditoriums, hangars, arenas, or stadiums.

(1) The derrick or working floor of every building shall be solidly decked over its entire surface except for access openings. *[Labor Code 7252]*

(2) 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 and Section 1710. *[Labor Code 7253]*

(3) Temporary floors shall be wood planking of proper thickness, grade and span to carry the working load, but shall not be less than two inches thick, full size undressed. *[Labor Code 7254]*

(4) Provision shall be made to secure temporary flooring against displacement by strong winds or other forces. *[Labor Code 7255]*

(5) Planks shall extend a minimum of 12 inches beyond centerline of their supports at each end. *[Labor Code 7256]*

(6) Wire mesh or plywood (exterior grade) shall be used to cover openings adjacent to columns where planks or metal decking do not fit tightly. The materials used must be of sufficient strength as required by Section 1632(b) to provide fall protection for personnel and prevent objects from falling through. *[Labor Code 7257]*

(7) Metal decking where used in lieu of wood planking shall be of equivalent strength and shall be laid tightly and secured to prevent movement. *[Labor Code 7258]*

(8) Floor planks or metal decking 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. *[Labor Code 7259]*

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(9) Prior to removal of temporary floor planks or metal decking, employees shall be instructed by assigned supervision the steps to be taken to perform the work safely and in proper sequence.
[Labor Code 7260]

(10) When gathering and stacking temporary floor plank on a lower floor, in preparation for transferring such plank for use on an upper working floor, the steel erector's personnel shall remove such plank successively, working toward the last panel of such floor, so that the work is always being done from the planked floor. *[Labor Code 7262]*

(11) 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 and Section 1710. *[Labor Code 7261]*

(12) The sequence of erection, bolting temporary guying, riveting and welding shall be such as to maintain the stability of the structural frame at all times during construction. This applies to the dead weight of the structure, plus weight and working reactions of all construction equipment placed thereon plus any external forces that may be applied. *[Labor Code 7263]*

(13) Where a building is being constructed in sections, each section constitutes a building.
[Labor Code 7264]

(14) Personal fall protection and nets shall be required in accordance with Article 24 and Section 1710.

(15) No person shall proceed with any work unless the planking and metal decking, or nets required by this article are in place.

(c) Special Provisions Applicable to Floor Openings. Section 1632(b) applies to floor openings at locations where steel erection work is taking place. This subsection applies where work is in progress that requires floor openings to be uncovered. For such work, all of the following requirements shall apply:

(1) The floor or working level where such work is in progress shall be under the exclusive control of the steel erection employer and shall be barricaded to prohibit entry by unauthorized personnel.

(2) The floor area adjacent to the floor opening shall be barricaded or the floor opening shall be covered when not attended by steel erection personnel.

(A) Cone and Bar Barricade (CBB) Specifications.

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[CBB specifications to be decided during the AC]

1. Materials used shall remain in position during the duration of use.

The warning/support cones are firmly connected to each other by solid plastic rod, or a similarly rigid and substantial connecting medium. *[Petitioners' proposed §1710 (l)(8)(E)]*

2. Color and Visibility criteria for the CBB.

3. Cones shall contain a warning label "Danger Floor Opening".

The CBB consist of vertical bright green warning /support cones with a minimum height of 28 inches, stating with black lettering on both sides: "DANGER ACCESS OPENING" *[Petitioners' proposed §1710(l)(8)(D)]*

4. Height.

- a. Cone size (18, 28, 36 inches)
- b. Bar height (a couple of inches below the cone)

5. Set-up requirements.

- a. Set up 6 to 10 feet prior to creating the opening and
- b. Employee creating the opening tied off

(B) Where Cone and Bar Barricade equipment (CBB) is utilized:

1. Employees shall be trained in the proper set up and use of CBB. Training shall be documented in accordance with Section 3203(b).

The employer provides and documents training, by a qualified person working on a floor or working level where a CBB has been established, on requirements of subsection (A) through (E) above. *[Petitioners' language §1710 (l)(8)(F)]*

2. CBB shall be set-up and maintained 6 to 10 feet from the opening until the task is completed or opening is covered. See Section 1635(c)(7).

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The CBB is maintained around all access openings borders and erected not less than six (6) feet or more than ten (10) feet from every access opening border. *[Petitioners' proposed §1710(1)(8)C]*

3. Employees setting up, walking, or working inside the demarcated area shall be protected from falls using personal fall protection in accordance with Section 1670.

4. Unauthorized employees shall be prohibited from disturbing or entering area demarcated by CBB.

(3) 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.

(4) All floor opening covers shall bear a sign stating, "OPENING-DO NOT REMOVE", in 2 inch high, black bold letters on a yellow background.

(5) The placement of covers shall be verified by a qualified person prior to each shift and following strong wind conditions.

(6) Workers shall be instructed and required to adhere to the following:

- (A) Keep covers in place when not engaged in work requiring the opening to be uncovered, and
- (B) Never remove a cover by walking forward or by stepping into an area where they cannot directly observe the surface their feet will touch.

(7) 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 shall meet the provisions of Section 1632(b).

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Appendix C

Plate C-38: Cone and Bar Barricade

[Illustrations or Photo of Cone and Bar]

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Day 2

Article 29. Erection and Construction

Amend Section 1710 to read:

§1710. Structural Steel Erection

(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~~ and 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.

(1) The derrick or erection floor shall be solidly planked or decked except for access openings. Planking ~~or~~ and decking shall be of equivalent sufficient strength, shall be of proper thickness to carry the working load and shall, at minimum have strength equivalent to “structural plank” as defined under “lumber” in section 1504. Planking shall be not less than 2 inches thick full size undressed, and shall be laid tight. Both planking and decking shall be secured as soon as practicable. [Petitioner’s proposed text]

(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)~~ 1670.

(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, unless a fall protection

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system is being used and that system is engineered by a registered, California State Structural Engineer. Other gGuardrail protection may also be used if equal fall protection is provided.

Note: If periphery fall protection is intended to be used as a catenary line, it shall meet the provisions of Section ~~1710(m)(4)~~ 1670. [Petitioner's proposed text]

(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.

(4) Midrail protection.

(A) Midrail protection shall be installed: as soon as the metal decking has been installed; and (i) as soon as metal decking installation is complete and the floor is ready for turnover to and acceptance of custody by the controlling contractor; and

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

(B) The deck shall be deemed complete when the erector has established that the entire decking process for a specific elevation or floor is finished and has been inspected by the inspector or record or other inspecting agent. [Petitioners' proposed text]

(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 constructibility.

(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.

Note: See §1635(c) for work in progress that requires floor openings to be uncovered.

(6) Metal decking holes and or openings shall not be cut until immediately prior to being permanently filled with installation of the equipment or structure for which the hole or opening is

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~~needed or intended to fulfill its specific use and which meets the strength requirements of Section 1632(b) of these orders, or the hole or opening shall be immediately covered.~~
[Petitioners' proposed text]

(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.

NOTE: Where a planked floor is not practical, subsection (1)(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.