

OCCUPATIONAL SAFETY
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NOTICE OF PROPOSED MODIFICATIONS TO

CALIFORNIA CODE OF REGULATIONS

TITLE 8: Division 1, Chapter 4, Subchapter 4, Article 2, Section 1504,
Article 21, Section 1637 and Appendix C, Plate C-17 of the Construction Safety Orders; and
Subchapter 7, Article 23, Section 3622 of the General Industry Safety Orders

Scaffold Plank Design Requirements

Pursuant to Government Code Section 11346.8(c), the Occupational Safety and Health Standards Board (Standards Board) gives notice of the opportunity to submit written comments on the above-named regulations in which further modifications are being considered as a result of public comments and/or Board staff evaluation.

On June 17, 2010, the Occupational Safety and Health Standards Board held a Public Hearing to consider revisions to Title 8, Article 2, Section 1504, Article 21, Section 1637 and Appendix C, Plate C-17 of the Construction Safety Orders; and Article 23, Section 3622 of the General Industry Safety Orders. The Standards Board received oral and written comments on the proposed amendments. The proposed regulations have been modified as a result of these comments.

A copy of the text with the modifications clearly indicated, are attached for your information. In addition, a summary of all oral and written comments regarding the original proposal and responses is included.

Any written comments must be related to these modifications and be received by 5:00 p.m. on August 26, 2010 at the Occupational Safety and Health Standards Board's Office, 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833 or submitted by fax at (916) 274-5743 or e-mailed at oshsb@dir.ca.gov. This proposal will be scheduled for adoption at a future Business Meeting of the Occupational Safety and Health Standards Board.

The Occupational Safety and Health Standards Board's rulemaking file on the proposed action is open to public inspection Monday through Friday, from 8:00 a.m. to 4:30 p.m. at the Standards Board's Office, 2520 Venture Oaks Way, Suite 350, Sacramento, California.

Inquires concerning the proposed modifications may be directed to the Executive Officer, Marley Hart at (916) 274-5721.

OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD

Marley Hart, Executive Officer

Date: August 6, 2010

Proposed Modifications

(Modifications for new language are shown in
bold and underscored.)

STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

Construction Safety Orders, Article 2. Definitions

Amend Section 1504 to read as follows:

§1504. Definitions.

Lumber.

(A) Douglas Fir or Equivalent. "Selected lumber" or other suitable material of proper size, having strength at least equal to the specified Douglas fir members.

(B) "Selected Lumber". Douglas fir that has been graded under standards as high as those followed by the West Coast Lumber Inspection Bureau or by the Western Wood Products Association as suitable for a bending stress of 1,500 psi.

(C) "Structural Plank."

1. Douglas fir graded for scaffold plank use and which has an allowable bending stress of at least 2,200 pounds per square inch (psi). Select structural scaffold plank, as described in Paragraph 171-b of the January 1, 2000 Standard Grading Rules No. 17, published by the West Coast Lumber Inspection Bureau and Scaffold No. 2 as described in Paragraph 58.12 of the 1998 Edition of the Western Lumber Grading Rules published by the Western Wood Products Association, satisfy this definition.

2. Southern Pine graded for scaffold plank use that meets the Standard Grading Rules for Southern Pine, effective July 1, 2002, Section 501 for Dense Industrial 72 Scaffold Plank and Section 502 for Dense Industrial 65 Scaffold Plank.

3. Other solid sawn wood planking graded as scaffold plank that meets the scaffold plank grading rules of an agency approved by the American Lumber Standards Committee for the species of wood used.

(D) Size: Unless otherwise stated, the lumber sizes referred to in these Orders mean nominal sizes and thus include both the rough and dressed members of those nominal sizes.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

Construction Safety Orders, Article 21. Scaffolds – General Requirements

Amend Section 1637 to read as follows:

§1637. General Requirements.

(f) This subsection provides minimum labeling, design and construction requirements for scaffold planking, such as solid sawn planks, manufactured platforms of wood (including laminated planks), metal planking, and planking manufactured from other materials.

(1) Except as specified in other Orders, all solid sawn planking shall be at least equivalent to 2-inch x 10-inch (nominal) lumber selected for scaffold grade plank as defined in Section 1504, Lumber - "Structural Plank."

(2)(A) The maximum permissible spans for Douglas Fir and Southern Pine planking for 2 x 10-inch (nominal) or 2 x 9-inch (rough) planks shall be as shown in the following Table:

Working (Live) Load (psf)	25	50	75
Permissible Span (ft.)	10	8	7

(B) The maximum permissible spans allowed for other wood species of scaffold planking shall not exceed 10 feet and shall be determined by a licensed professional engineer.

~~(3) Manufactured planks with spans in excess of 10 feet shall be labeled to indicate the maximum safe working load based on a safety factor of four.~~ *[Relocated, in part, to new (f)(3)(B)]*

(3)(A) All manufactured scaffold planking including, but not limited to, engineered wood products, laminated veneer lumber, metal, composite, plastic, or any other manufactured planks shall be capable of supporting, without failure, its own weight and 4 times the maximum intended working (live) load.

(B) Manufactured planks with spans in excess of 10 feet shall be labeled to indicate the maximum intended working (live) load. *[Moved, in part, from existing (f)(3)]*

(C) Manufactured scaffold planks shall be used in accordance with the manufacturer's specifications.

(4) All planks shall be capable of safely sustaining the intended load. Prior to being placed in service, all laminated veneer lumber scaffold planks, manufactured after [OAL to insert the effective date], shall be labeled with the seal of an independent, nationally recognized, inspection agency approved by the International Accreditation Services (IAS) certifying compliance with ASTM D 5456-09a and ANSI/ASSE A10.8-2001, Section 5.2.10.

NOTE: ASTM D 5456-09a is the standard for the evaluation of structural composite lumber products. ANSI/ASSE A10.8-2001, Section 5.2.10. requires the inspection agency to certify that laminated veneer lumber scaffold planks are compliant with the design criteria in the ANSI/ASSE A10.8 standard.

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(5) Prior to being placed into service, all solid sawn wood scaffold planks shall be certified by, or bear the grade stamp of, a grading agency approved by the American Lumber Standards Committee.

(6) All scaffold planks shall be visually inspected for defects before use each day.

(7) Defective or damaged scaffold planks shall not be used and shall be removed from service.

(v) Wood platforms shall not be covered with opaque finishes, except that platform edges may be covered or marked for identification. Platforms may be coated periodically with wood preservatives, fire-retardant finishes, and slip-resistant finishes; however, the coating may not obscure the top or bottom wood surfaces.

(w) Platforms, including, but not limited to, those consisting of solid sawn wood planks, engineered wood products, laminated veneer lumber, metal, composite, plastic, or any other manufactured planks, shall not deflect more than 1/60 of the span when loaded to the manufacturer's recommended maximum load.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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**PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4**

Construction Safety Orders, Appendix C

Delete Plate C-17 in its entirety:

**PLATE C-17
SUGGESTED TEST FOR SCAFFOLD PLANKS**

To test scaffold planks a simple impact loading method is as follows:

1. Select a span from the following table that is convenient for the length and size of plank to be tested. Obtain two (2) blocks about two feet (2') long and of a thickness (given in table) that corresponds to the span and plank size. Set blocks and plank on a flat surface as illustrated, so that clearance between surface and plank is uniform.
2. Have men (two should be enough) spring on the board, standing close together at mid-span, until it deflects to the surface below several times. Do not apply a load so large that the plank is held against the floor. It should touch the floor only for an instant during springing.
3. Listen for cracking and look for splitting.
4. If no cracking or splitting is noted, turn the plank over and repeat the test. If it cracks or splits, reject it.
5. In case of faint cracking sound (caused by stretching of fibers near allowable knots), repeat test, and accept plank if no further cracking sounds are heard.

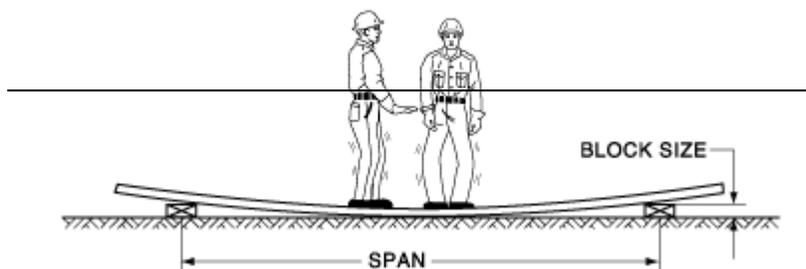
Table of Block Sizes for Various Spans

Plank span, feet	Plank size, * inches	Block size, inches
8	2 x 10 or 2 x 12	2 1/2
10	2 x 10 or 2 x 12	3 1/2
12	2 x 12	5 1/2 *

* All planks must comply with safety orders in regard to grade, size, condition, etc.

The main advantage of this system, in addition to simplicity, is that it will show up wood that is brash or contains compression failures, while not damaging good planks.

SUGGESTED TEST FOR SCAFFOLD PLANKS



STANDARDS PRESENTATION
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PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

General Industry Safety Orders, Article 23. Mobile Ladder Stands and Scaffolds (Towers)

Amend Section 3622 to read as follows:

§3622. General.

(a) "All scaffolds shall be erected in accordance with the provisions of Article 21 of the Construction Safety Orders."

(f) Work Levels.

(5) The work level platform of scaffolds (towers) shall be ~~made of wood, aluminum, or plywood planking, steel or expanded metal,~~ for the full width of the scaffold, except for necessary openings. Work platforms shall be secured in place. All scaffold platforms planking shall meet the requirements of the Construction Safety Orders, Section 1637.

~~be two inch (nominal) Douglas Fir suitable for scaffold planks, or equivalent. Minimum allowable bending stress shall be 2,200 psi.~~

~~NOTE: Select structural scaffold plank, as described in Paragraph 171 b of the January 1, 2000 Standard Grading Rules No. 17, published by the West Coast Lumber Inspection Bureau and Scaffold No. 2 as described in Paragraph 58.12 of the 1998 Edition of the Western Lumber Grading Rules published by the Western Wood Products Association, satisfy this requirement.~~

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

Summary and Responses to Oral and Written Comments

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Website address www.dir.ca.gov/oshsb**SUMMARY AND RESPONSES TO ORAL AND WRITTEN COMMENTS****I. Written Comments****Comment:**

Mr. Ken Nishiyama Atha, Regional Administrator, Occupational Safety and Health Administration (Federal OSHA), by letter dated June 10, 2010.

Federal OSHA stated that it had completed its review of the various provisions of the proposed standards. Federal OSHA stated that Section 1637(f)(2)(B) allows the maximum permissible span for wood species, other than Douglas Fir and Southern Pine, to be determined by a licensed professional engineer. A concern was stated that the federal standard, 29 CFR 1910.29(a)(9) [sic 29 CFR 1910.28(a)(9)] does not allow plank lengths greater than 10 feet for any species of wood. Consequently, federal OSHA stated that the proposed standard is not at least as effective as the federal standard.

Response:

As a result of this comment, the Board believes that a modification for clarification and equivalency with the federal standard is necessary. Therefore, a proposed modification for Section 1637(f)(2)(B) will specify that the maximum permissible spans allowed for other wood species of scaffold planking shall "not exceed 10 feet" and shall be determined by a licensed professional engineer.

The Board thanks Federal OSHA for their review of the proposal, comments, and participation in the Board's rulemaking process.

II. Oral Comments

Oral comments received at the June 17, 2010, Public Hearing in Sacramento, California.

Grouped Comments:

The following attendees spoke in support of the proposal:

- Steve Johnson, Associated Roofing Contractors of the Bay Area Counties.

- Bruce Wick, California Professional Association of Specialty Contractors.
- John Warlikowski, Kennison Forest Products, Inc.
- Kevin Bland, representing the California Framing Contractors Association and the Residential Contractors Association.
- Greg Allaire, Southwest Carpenters Training Fund.
- Jeff Jack, RedBuilt, LLC. Mr. Jack also expressed specific support for Section 1637(f)(4) as written and encouraged the Board not to make any modifications to proposed subsection (f)(4).

Response:

The Board thanks these individuals and their organizations for their comments, support of the proposal, and participation in the Board's rulemaking process.

Comment:

Board Member, William Jackson stated that Section 1637(f)(4) requires a label or a seal for laminated veneer lumber (LVL) planking manufactured after the effective date of the proposal. He expressed a concern that there is not a similar requirement in the proposal for LVL planking put into service before the effective date of the proposal.

Response:

Several advisory committee members noted that some employers may have an inventory of suitable, quality LVL planking products, and it would be onerous and unnecessary to discard this planking or leave it unused if the original labeling or lack of labeling did not meet the requirements of the proposal. It would not be feasible or possible in most cases retroactively to require the specific labeling or seal on previously manufactured LVL planking; although it should be noted that most legitimate manufacturers have for many years included labels/embossing on LVL planking that includes the date of production and the logo of their independent inspection agency.

Consequently, the advisory committee agreed to language that would require the specified label or seal for LVL planking products manufactured after the effective date of the proposal. The proposal's requirements for daily visual inspection of scaffold planking and for removal of damaged planking from service would in many cases identify and address unsuitable or sub-standard LVL planking previously introduced into the California market. Accordingly, the Board does not believe it is necessary to modify the proposal in this regard.