

**OCCUPATIONAL SAFETY  
AND HEALTH STANDARDS BOARD**

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**NOTICE OF PROPOSED MODIFICATIONS TO  
CALIFORNIA CODE OF REGULATIONS**

Title 8, Chapter 4, Subchapter 4, Article 3, Section 1581(d)  
of the Construction Safety Orders

**Protection from Electric Shock**

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 standard in which modifications are being considered as a result of public comments and/or Standards Board staff consideration.

On July 21, 2005, the Standards Board held a Public Hearing to consider revisions to Title 8, Section 1581(d), of the Construction Safety Orders. The Standards Board received oral comments on the proposed revisions; however, no modifications were made as the result of those comments. At the September 15, 2005, Public Meeting, the public expressed concerns with the clarity of the proposed language of this proposal. The Board accepted these public comments and this rulemaking has been modified as a result of these concerns.

A copy of the full text of the standard as originally proposed, and a copy of the pages 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 staff responses is included.

Any written comments on these modifications must be received by 5:00 p.m. on November 30, 2005, at the Occupational Safety and Health Standards Board, 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833. This proposed rulemaking will be scheduled for adoption at a future Business Meeting of the Standards Board.

The Standards Board's rulemaking files on the proposed action are open to public inspection Monday through Friday, from 8:00 a.m. to 4:30 p.m., at the Standards Board's Office at 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833.

Inquiries concerning the proposed changes may be directed to the Executive Officer, Keith Umemoto, at (916) 274-5721.

OCCUPATIONAL SAFETY AND HEALTH  
STANDARDS BOARD

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Keith Umemoto, Executive Officer

Date: November 10, 2005

**STANDARD AS ORIGINALLY PROPOSED**

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

PROPOSED STATE STANDARD,  
TITLE 8, CHAPTER 4

Amend Section 1518 to read as follows:

§1518. Protection from Electric Shock.

(a) Suitable protective equipment or devices shall be provided and used on or near energized equipment for the protection of employees where there is a recognized hazard of electrical shock or burns.

(b) When protective insulating equipment is used, it shall comply with the Electrical Safety Orders.

(c) In lieu of other protective equipment, barricades ~~may~~ shall be used to provide protection from exposed, energized equipment.

(d) Before work is begun, the employer shall ascertain by inquiry, direct observation, or by instruments, whether any part of an energized electric power circuit, exposed or concealed, is so located that the performance of the work may bring any person, tool or machine into physical or electrical contact with the electric power circuit.

(1) Where such circuits exist, a legible marking shall be made indicating the presence and location of the energized circuit(s), or warning signs shall be posted in accordance with Section 3340 of the General Industry Safety Orders.

(2) The employer shall advise the employee of the location of such energized circuits, the hazards involved, and the protective measures to be taken in accordance with Section 1509 of these Orders.

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

## **PROPOSED MODIFICATION**

**(Modification is indicated in bold, double underline wording for new language.)**

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(1) Where such circuits exist, a legible marking shall be made indicating the presence and location of the energized circuit(s), or warning signs shall be posted in accordance with Section 3340 of the General Industry Safety Orders.

(2) The employer shall advise the employee of the location of such energized circuits, the hazards involved, and the protective measures to be taken in accordance with Section 1509 of these Orders.

**NOTE: Section 1518(d) applies to electrical installations present on the jobsite which do not involve excavations. For electrical installations involving excavations as defined in Section 1540, see Section 1541.**

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

## **SUMMARY AND RESPONSE TO COMMENTS**

## **PROTECTION FROM ELECTRIC SHOCK**

### **SUMMARY AND RESPONSE TO ORAL AND WRITTEN COMMENTS AS THE RESULT OF THE JULY 21, 2005, PUBLIC HEARING**

#### I. Written Comments

There were no written 45-day Notice comments submitted to the Board.

#### II. Oral Comments

Oral comments received at the July 21, 2005, Public Hearing in San Diego, California.

Mr. Fred Dunn, CTEM Contractor

##### Comment:

Mr. Dunn indicated that he did not know whose safety order is cited in existing language contained in subsection (b) of the proposal. He indicated that the California Building Standards Commission (CBSC) adopted the National Electrical Code (NEC) in 2002 which makes reference to the National Fire Protection Association (NFPA) 70E standard and added that the 70E standard has a new directive for 2004 that is very restrictive. Mr. Dunn stated that he believes the proposal will require the facility owner to have a single line diagram of the premises that indicates the fault current in all locations, in order to identify proper Cal-OSHA rated clothing the employees should wear. Mr. Dunn requested clarification on whether or not the proposal is located in the Electrical Safety Orders or included in the NEC or NFPA Safety Orders.

##### Response:

Subsection (b) refers to an existing requirement for protective insulating equipment that states that when such equipment is used (not mandated), it is to comply with the requirements of Title 8, Electrical Safety Orders which address the use of protective equipment including but not limited to gloves, barriers, insulating blankets, non conductive tools, etc. This portion of Mr. Dunn's comment relates to an existing Title 8 requirement that is not proposed for amendment and is therefore outside the scope of the current rulemaking proposal to amend Section 1518 to address an entirely different issue consistent with what is required by comparable Federal OSHA standards.

Subsection (b) states that when protective insulating equipment is used the employer is to refer to applicable portions of Title 8, Electrical Safety Orders which to date have not been amended to include the requirements of the 2002 or the 2004 directive contained in

the National Electrical Code which has been adopted by the CBSC into the California Electrical Code. Section 1518(b) is a reference to Title 8, Electrical Safety Orders, not the CBSC California Electrical Code.

The Board thanks Mr. Dunn for his participation in the Board's rulemaking process.

Ms. Elizabeth Treanor, Phylmar Regulatory Roundtable

Comment:

Ms. Treanor expressed her appreciation of Board staff's excellent work on the proposal and indicated that it is properly placed in the Construction Safety Orders.

Response:

The Board concurs with Ms. Treanor with respect to the place of the proposal in the Construction Safety Orders, acknowledges her approval of the proposal and appreciates her participation in the Board's rulemaking process.

**SUMMARY AND RESPONSE TO ORAL COMMENTS RECEIVED**  
**AT THE SEPTEMBER 15, 2005, PUBLIC MEETING**

I. Oral Comments

Mr. Bill Jackson, Granite Construction

Comment:

Mr. Jackson stated that he is concerned that the proposal for Section 1518(d), Protection from Electric Shock, may not have taken into consideration that the excavation orders in Section 1541 already require notification at least 48 hours prior to the start of the job. He stated that the regulated community needs to know if it is the Board's intent to have contractors comply with more than the marking and one-call center (Underground Service Alert) requirement contained in Section 1541, in order to be deemed in compliance with Section 1518(d).

Response:

The Board notes that Section 1541 is a vertical standard that specifically applies to excavations as defined in the Construction Safety Orders. Section 1518 applies to general construction operations where employees could come in contact with energized conductors in situations that do not necessarily involve an excavation (e.g. energized conductors encased in a concrete slab, vault, in a wall or the floor of a multistory building).

Proposed Section 1518(d) requires the employer to ascertain the presence of energized conductors by a number of methods, one being an inquiry that would include consulting the one-call center as specified in Section 1541 (i.e. Underground Service Alert). Proposed Section 1518(d) addresses an occupational safety issue addressed by federal OSHA and must be addressed in Title 8 as required by Labor Code section 142.3(a)(2).

The Board agrees with Mr. Jackson that further clarification or delineation between the respective requirements contained in Sections 1518(d) and 1541 would provide clarity.

At the September 15, 2005, Business Meeting, the Board directed Board staff to address the concerns expressed by Mr. Jackson and the subsequent comment from Ms. Stroup-Fisher via the 15-Day Notice process. The Board staff has proposed a clarifying "NOTE" to Section 1518(d) that indicates to the employer that Section 1518(d) applies to electrical installations present on the jobsite which do not involve excavations as defined in Section 1540 and that electrical installations that involve excavations are subject to the requirements of Section 1541.

The Board thanks Mr. Jackson for his comment and participation in the Board's rulemaking process.

Ms. Marti-Stroup-Fisher, Associated General Contractors of California

Comment:

Ms. Stroup-Fisher stated that she agrees that Section 1518 is unclear whether the underground service alert identification of the electrical circuit does satisfy the requirement. She recommended the Board to send this proposal to an advisory committee.

Response:

See the preceding Board's response to Mr. Bill Jackson's comment.

The Board thanks Ms. Stroup-Fisher for her comment and participation in the Board's rulemaking process.