

**OCCUPATIONAL SAFETY  
AND HEALTH STANDARDS BOARD**

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**FINAL STATEMENT OF REASONS**

## CALIFORNIA CODE OF REGULATIONS

TITLE 8: Section 3328 of the General Industry Safety Orders

**DEFINITION OF ADEQUATE DESIGN****MODIFICATIONS AND RESPONSE TO COMMENTS RESULTING FROM  
THE 45-DAY PUBLIC COMMENT PERIOD**

There are no modifications to the information contained in the Initial Statement of Reasons except for the following substantive and sufficiently related modifications that are the result of public comments and/or Board staff evaluation.

**Section 3328. Machinery and Equipment.**

This section addresses a number of safety issues related to the safe use and operation of machinery and equipment which include but are not limited to: operation under stress or load, inspection and maintenance, defective parts, and design, securing or covering critical components of machinery and equipment against breakage which could result in catastrophic failure and employee injury or fatality. Modifications were proposed to add regulatory text in subsection (a) that replaces the term "adequate design" with regulatory text to clarify that all machinery and equipment shall be designed or engineered to safely sustain all reasonably anticipated loads in accordance with recognized engineering principals. Further modifications were proposed to ensure that, machinery and equipment is not used or operated in environmental conditions that are not recommended by the manufacturer unless engineered by design to withstand those conditions.

The proposed modifications will clarify to the employers that every piece of machinery and equipment is capable of sustaining its intended load and is engineered to safely support and withstand all anticipated loads, speeds, stresses or environmental conditions that are not against the manufacturer's recommendations or its engineered design.

**SUMMARY AND RESPONSE TO WRITTEN AND ORAL COMMENTS:****I. Written Comments:**

**Mr. David Shiraishi, Area Director, Region IX, OSHA, U.S. Department of Labor, by letter dated August 17, 2015.**

Comment:

Mr. Shiraishi commented that Federal OSHA has reviewed the proposal and found it to be commensurate with federal standards.

Response:

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

**Ms. Marti Fisher, Legislative Advocate, California Chamber of Commerce, in a comment submitted to the Standards Board at the public hearing dated August 20, 2015.**

Comment:

Ms. Fisher suggested a revision to the proposal which duplicates the language that Mr. Bland proposed in his oral comments.

Response:

The Board refers Ms. Fisher to the response to the oral comments from Mr. Kevin Bland.

The Board thanks Ms. Fisher for her comments and participation in Board's rulemaking process.

**Mr. Gerald Fulghum, Safety Consultant, by letter dated July 20, 2015.**

Comment:

Mr. Fulghum wrote that he agreed with the Board's proposal to adopt language to provide for a clear, concise, and correct reading and interpretation of the regulation. However, he stated that an issue he would like the Board to consider is the compound nature of Section 3328(a). He points out that in the first part of the proposal, the employer is to insure that machinery and equipment be "...designed or engineered to safely sustain all anticipated loads..." yet in the second part, machinery and equipment "...shall not be used or operated under conditions of speeds, stresses, or loads which endanger employees." Mr. Fulghum opines that the two separate requirements unnecessarily compound the intent and requirements of the regulation.

Mr. Fulghum proposes that the Board separate these requirements into two self-standing subsections for clarity and proper enforcement.

Response:

The Board accepts the comment and proposes to separate subsection (a) into two separate paragraphs, which will also accommodate the requirements which are proposed to address environmental conditions.

The Board thanks Mr. Fulghum for his comments and participation in Board's rulemaking process.

## II. Oral Comments:

Oral comments received at the August 20, 2015, Public Hearing in Sacramento, California.

### **Mr. Kevin Bland, representing the California Framing Contractors Association, the Residential Contractors Association and the Western Steel Council.**

#### Comment:

Mr. Bland stated that the language leaves out the fact that the employer is not always the designer of the equipment. He stated that the safe use of the equipment and using it as designed and recommended by the manufacturer, is the main key. He proposed the following new language:

“All machinery and equipment shall be used or operated in accordance with the manufacturer’s recommended speeds, stresses, and load requirements where such recommendations are available.”

He said that this new language keeps employers out of an overload situation and keeps the mode of operation consistent with the manufacturer’s specifications. He stated that the new language also enhances safety and the employer’s capability of compliance.

#### Response:

The Board accepts Mr. Bland’s comment pertaining to “All” machinery and equipment. The proposal has been further modified to simply require machinery and equipment to be designed to sustain all reasonably anticipated loads in accordance with recognized engineering principles thus replacing the phrase, “where such recommendations are available”. The Board believes this modification eliminates the concern over scenarios where the manufacturer’s recommendations are not available.

The Board thanks Mr. Bland for his comments and participation in Board’s rulemaking process.

### **Ms. Laura Stock, Occupational Safety and Health Standards Board Member.**

#### Comment:

Ms. Stock asked Mr. Bland what could be done if information from the manufacturer for a piece of equipment is not available. Mr. Bland stated that other available information for that piece of equipment could be used if it identifies what the stresses, speed, and load requirements are. Ms. Stock stated the proposal might benefit from further clarification, and the final language should address and clarify those circumstances.

#### Response:

To address Board member Stock’s concern over the availability of the manufacturer’s recommendations, the proposal has been modified to state that the design and engineering of

machinery and equipment shall be in accordance with recognized engineering principles which would apply when the manufacturer's recommendations are not available.

**Mr. Bruce Wick, Director of Risk Management, CA Professional Association of Specialty Contractors (CALPASC).**

Comment:

Mr. Wick stated that the language that Mr. Bland proposed works. He stated that when the Division issues a citation that is not sustained, it is appropriate to revisit that regulation and review it. He suggested that it would be ideal to bring all of the involved stakeholders together to discuss the case behind this regulation, and to have all of the information available about the case for them to discuss. He stated that it is important that employers are not discouraged from using equipment because they cannot figure out if it is okay to use that equipment to transport materials. He further stated that equipment should be able to be used to lift, load, and carry materials to protect employees from injury.

Response:

The Board wishes to clarify that the proposal is not intended to discourage employers from using assistive devices to lift and handle loads but that such equipment must be safe for its intended use.

The Board thanks Mr. Wick for his comments and participation in Board's rulemaking process.

**Mr. David Harrison, Occupational Safety and Health Standards Board Member.**

Comment:

Mr. Harrison suggested that labor representatives speak to the individuals who have given testimony today on this issue to ensure that they get the opportunity to weigh in on Mr. Bland's proposed new language.

Response:

Board staff reached out to labor and management during the development of the proposal. There was no response to the proposal by labor. Rulemaking procedures dictate that modifications to the proposal be submitted to those who commented for their further review and comments.

**Dr. Robert Blink, Occupational Safety and Health Standards Board Member.**

Comment:

Dr. Blink suggested adding language to the proposal to address operating machinery and equipment in certain environmental conditions, such as when it is raining, or when the temperature is below freezing or higher than 100 degrees. He recommended the following revision to the proposal:

“Machinery and equipment shall be designed or engineered to safely sustain all anticipated loads and anticipated operating conditions.”

He also recommended adding language to address situations where manufacturer specifications are not available so that some other rational analysis or scientific evidence can be entered into the discussion when manufacturer specifications are not available.

Response:

The Board accepts the suggestion to include environmental conditions which could render the equipment/machinery unsafe to use (contrary to manufacturer’s recommendations). This will ensure that the environment in which machinery and or equipment is operated could not contribute to an accident and place employees at risk of injury. With regard to the issue of unavailable manufacturer’s recommendations, the Board notes the response provided to Ms. Stock with respect to her recommendation to address situations where the manufacturer’s specifications are not available. In the proposed subsection (a)(2) when the manufacturer’s recommendations regarding environmental conditions are not available the employer shall consider the machinery/equipment’s engineered design.

**MODIFICATIONS AND RESPONSES TO COMMENTS RESULTING FROM  
THE 15-DAY NOTICE OF PROPOSED MODIFICATIONS**

No further modifications to the information contained in the Initial Statement of Reasons are proposed as a result of the 15-Day Notice of Proposed Modifications mailed on October 14, 2015.

I. Written Comments:

**Mr. David Shiraishi, Area Director, Region IX, OSHA, U.S. Department of Labor, by letter dated October 22, 2015.**

Comment:

Mr. Shiraishi commented that Federal OSHA has reviewed the proposal and found it to be commensurate with the federal standards.

Response:

The Board thanks Mr. Shiraishi for his comments and participation in the Board’s rulemaking process.

**ADDITIONAL DOCUMENTS RELIED UPON**

None.

**ADDITIONAL DOCUMENTS INCORPORATED BY REFERENCE**

None.

**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 standard. No alternative considered by the Board would be (1) more effective in carrying out the purpose for which the action is proposed; or (2) would be as effective as and less burdensome to affected private persons than the adopted action, or (3) would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provision of law. Board staff was unable to come up with any alternatives or no alternatives were proposed by the public that would have the same desired regulatory effect.