OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD
2520 Venture Oaks, Suite 350
Sacramento, CA 95833
(916) 274-5721
FAX (916) 274-5743
www.dir.ca.gov/oshsb

FINAL STATEMENT OF REASONS

CALIFORNIA CODE OF REGULATIONS

TITLE 8: Division 1, Chapter 4, Subchapter 7, Article 98, Section 4999
of the General Industry Safety Orders

Properly Rigged (Handling Loads)

MODIFICATIONS AND RESPONSES 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 sufficiently related modifications that are the result of public comments and/or Board staff evaluation.

Section 4999. Handling Loads.

New Subsection (a).

A modification is proposed to new subsection (a) to delete the word “Crane” in the second sentence. The proposed modification is necessary to ensure that it is clear to the employer that the proposal is not restricted to loads rigged to cranes, but to all types of equipment used in lifting service (e.g. derricks and hoists).

Subsection (c)(1).

A modification is proposed to subsection (c)(1) to delete the second sentence because it is unnecessary to mention Section 5002 as it already exists elsewhere in Title 8 and because, as worded, the proposal could mislead the employer into believing that Section 5002 is the only section to be concerned with regarding hook-latch use, when in fact there are other hook-latch requirements in Title 8 crane standards.

Subsection (d)(4).

A modification is proposed to delete originally proposed subsection (d)(4). This modification is necessary because the issue of side loading is adequately addressed by the existing language in re-numbered subsection (g), which describes when side loading is permitted.

SUMMARY AND RESPONSES TO ORAL AND WRITTEN COMMENTS

I. Written Comments

Mr. Brad Closson, Craft Forensic Services, by letter dated June 2, 2008.

Note: Mr. Closson's comment letter consists of six sub-comments. Board staff has numbered each comment and corresponding response, accordingly.

Comment No. 1:

With regard to new subsection (a), Mr. Closson expressed concern that the term "qualified person" is redundant and might result in confusion given the existing definition for qualified person which stipulates that the individual be trained and experienced and have demonstrated their ability to perform the work safely.

Mr. Closson also stated that the phrase *"capable of safely performing the rigging operation"* in new subsection (a) is unclear as "to what" and "from whom" any action is required. He stated that since the proposed language is buried in a single section, it will apply to just this one operation. Mr. Closson suggested creating a rigger certification requirement that specifies the rigger's qualifications especially if the proposal is intended to extend the qualified rigger's responsibilities to beyond customary rigging duties.

Finally, Mr. Closson stated that in the second sentence of proposed subsection (a), the phrase "Crane loads" should be modified to delete the term "Crane" to ensure the standard correctly applies to all types of lifting service equipment addressed by the scope of Article 98.

Response to Comment No. 1:

The term "qualified person" as used in the context of Section 4999 is the rigger. Therefore, the Board does not believe the term "qualified person" is redundant in proposed subsection (a). The Board does not see any confusion or conflict in the proposed language, since riggers in industry are by definition qualified persons by virtue of their training and experience to handle loads.

It is clear to the Board that the phrase "capable of safely performing the work safely" in proposed subsection (a) is an obvious reference to the rigger and the process of rigging (attaching and detaching) the load to the crane, derrick, or hoist. The Board believes that the issue of rigger certification is not appropriate for this rulemaking based on stakeholder response to Board staff inquiry on this subject and since this proposal consists of basic technical qualifying revisions to existing Title 8 language. The Board believes that certification is a complex issue that would undoubtedly require the assistance of an advisory committee to consider. Based on stakeholder response, employers have demonstrated a preference for a performance rather than a prescriptive approach to rigger qualification. There are ample sources of information such as the American National Standard (ANSI) A10.42-2000, Safety Requirements for Rigging Qualifications and Responsibilities standard that provide guidance to employers on how to establish an effective rigger training and qualifications program.

The Board agrees with Mr. Closson's suggestion to delete the word "Crane" in the phrase "Crane loads" used in the second sentence of proposed subsection (a) to ensure that it is clear to the employers that Section 4999 applies to more than just rigging cranes but to derricks and hoists as well.

Comment No. 2:

Mr. Closson stated that the last sentence in proposed subsection (c)(1) contains an unnecessary and misleading reference to Section 5002. Mr. Closson believes this reference is misleading because it implies that Section 5002 is the only provision that deals with crane hooks and will in effect lessen the current requirements for hook latches on cranes. Mr. Closson agrees with the proposal to delete the word "properly" in the first sentence.

Response to Comment No. 2:

Following review of Sections 4884, 5033 and 5034 and the safe operating practices for loads suspended by slings in Section 5042 that collectively and adequately address the issue of hook/latch safety (securing the suspended load), the Board agrees with Mr. Closson and proposes to modify the proposal to delete the proposed second sentence in subsection (c)(1) that refers to the closure of hook latches and gates and Section 5002.

Comment No. 3:

Mr. Closson stated the term "structures" as defined in Section 3207 has a broad meaning, broader than the meaning given to it in the context of Section 1710 which pertains to erection of structures. He stated that providing this "NOTE" incorrectly implies that "all" structures covered in the GISO must meet the requirements established only for steel erection.

Mr. Closson suggests qualifying the term "structures" by adding the phrase "within the scope of Section 1710(a)" to clarify to the employer that it is the rigging requirements of Section 1710 that are being referred to in the proposed NOTE to subsection (c)(1). Mr. Closson also indicated there are no signals in the California code, practice or any industry in general that address load attachment; therefore, the NOTE is irrelevant and misplaced.

Response to Comment No. 3:

The Board believes it is sufficiently clear from the NOTE's proposed wording that the NOTE refers to the requirements of Section 1710. With regard to the reference to signal requirements, this information is intended to merely inform the reader where crane signal requirements used in crane operations are located. Since crane operations often take place in concert with rigging and load handling operations, the Board believes the location of this information in the NOTE is not misplaced. Therefore, the Board believes no modification is necessary.

Comment No. 4:

Mr. Closson expressed concern over the use of cross-referencing between equally applicable sections and the possible technical misrepresentation created by cross-referencing sections. Mr. Closson stated that the cross-reference to Article 101 in proposed subsection (c)(2) is confusing and redundant. He stated that the current scope of Article 101, Section 5040, already states very clearly that the Article applies to the lifting operations relevant to this section and all other lifting sections. He believes in this particular cross reference, the entire Article 101 is included as if it relates to the "mechanical condition" of a steel sling, as stated in the existing first sentence of this section. However, Article 101 encompasses all sling types and materials, and addresses sling manufacturing techniques, application, inspection, hitches, etc.

Response to Comment No. 4:

The Board indicated that the proposed cross-referencing is provided to merely clarify to the employer where other potentially applicable safety orders are located without having to unnecessarily duplicate regulatory text. The Board does not find that the proposed cross-referencing is an unsafe practice nor does it misrepresent facts.

The Board sees no justification based on either safety or clarity for Mr. Closson's proposed modifications. Regarding Mr. Closson's modified new language in proposed subsection (c)(2), Section 5043 merely describes an inspection requirement that slings, fastening and attachments be periodically examined for damage or defects by a qualified person. This constitutes an unnecessary and unsafe narrowing and exclusion of many other sling requirements contained in Article 101 and could lead employers to believe that the only concern for slings when handling loads is that they be periodically inspected and thus ignoring many other sling safety requirements such as safe operating practices; use of alloy chain, wire rope, metal mesh, natural and synthetic fiber; synthetic web slings; and what actions to take when defective hoist slings, sling hooks and rings are discovered.

Therefore, the Board believes no modification to the proposal in relation to this comment is necessary.

Comment No. 5:

Mr. Closson stated that Section 4990 establishes the scope of Article 98 as "all cranes, hoists and derricks." He contends that side loading is adverse to all of these devices and prohibited by all industry practices and standards. Mr. Clossson stated that proposed subsection (d)(4) narrowly restricts the practice of side loading of booms to equipment with booms. Therefore, Mr. Closson proposes to use the words "cranes, hoists and derricks" in place of the words "the boom".

Response to Comment No. 5:

Please see the Board's Response to Mr. Closson's Comment No. 1 regarding the use of the proposed term "Crane loads" and his suggestion to delete the word "Crane."

The modification referred to in Response to Mr. Closson's Comment No.1 will clarify to the employer that the provisions of Section 4999 apply to cranes, hoists, and derricks used in lifting

service consistent with the scope of Article 98 and Section 4990. Therefore, the Board is proposing to delete subsection (d)(4), as it is redundant of proposed subsection (g).

Comment No. 6:

Mr. Closson stated that this proposal will result in a cost impact to all crane users, large and small, attributable to training and documentation.

Response to Comment No. 6:

The Board believes that this proposal is consistent with the injury illness prevention program in existing GISO, Section 3203 and CSO, Section 1510 which already requires training and documentation. By definition, the term "qualified person" means a person who possesses the skills and knowledge necessary to safely perform his/her job. This requires the employer to provide training which is already required by Sections 1510 and 3203. Discussion with stakeholders supports this assertion to the extent that construction industry employers are known to provide training for their riggers to become a qualified person.

Therefore, the Board does not expect any adverse additional cost as a result of this proposal. The purpose of this proposal is to provide technical clarifying amendments to existing Title 8 standards, specifically Section 4999, which are consistent with industry practice.

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

Mr. Ken Nishiyama Atha, Regional Administrator-Region IX, U.S. Department of Labor, Occupational Safety and Health Administration, by letter dated June 27, 2008.

Comment:

Mr. Nishiyama Atha stated that based on Region IX's review of this proposal, the proposed amendments to Section 4999 render the state standard at least as effective as (ALAEA) the comparable federal standard on this issue.

Response:

The Board acknowledges Region IX's determination that the proposal is ALAEA the federal standard.

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

Mr. James M. MacDonald, Vice President, Safety and Accident Prevention, Pacific Maritime Association (PMA), by letter dated July 17, 2008.

Comment:

Mr. MacDonald believes that this proposal would require the same training and oversight on all crane loads, without regard to the complexity, regularity, and frequency of the work. Mr. MacDonald stated that it is the PMA's opinion that when one compares the specific operations scope requirements in Article 98 and Article 14, the rigging requirements of Section 4999 do not apply to marine terminal operations regulated by Article 14 of the General Industry Safety Orders (GISO).

Mr. MacDonald described various types of cargo and rigging operations involving the use of automatic spreader beams which do not require an employee to actually rig the load. In some lifts, the crane or equipment operator will activate the automatic spreader beam and rig the load. Mr. MacDonald also described maritime rigging scenarios in which various types of boxed or palletized loads are rigged and lifted by longshore workers which do not require additional rigger oversight. A description of project cargo rigging operations was provided that describes a process of individual rigging using wires or slings overseen by an experienced foreman or the cargo owner's representative. Mr. MacDonald also emphasized that Article 14 already contains adequate vertical standards that apply to the marine cargo handling industry, and in some cases instructions that address marine terminal rigging operations.

Response:

As stated in Mr. MacDonald's letter to the Board, the Scope of Article 98 which contains Section 4999 explicitly states that the standards contained therein apply to all crane, hoist and derrick operations except when orders of a specific nature (i.e. vertical standards) apply. The Board notes that Article 14, Marine Terminal Operations contain specific standards addressing the issue of load handling in various sections as indicated in Mr. MacDonald's attachment to his July 17, 2008 letter. Sections 3461-3486 address relevant load handling issues such as, but not limited to: crane certifications, unitized load lifting, bales load lifting, container lifting, and log and pallet rigging. Since the scope of Article 98 is specified in Section 4990, the Board believes no modification to Section 4999 is needed in order to address the issue of scope.

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

Ms. Bo Bradley, AGC Director, Safety, Health and Regulatory Services, Associated General Contractors of California (AGC), by letter dated July 15, 2008.

Comments No. 1 and No. 2:

Ms. Bradley stated the AGC suggests that subsection (a) be modified to indicate that all loads should be addressed, not just crane loads, and that the terms "qualified person (rigger)" and "by a trainee" be deleted in subsection (a).

Ms. Bradley also stated the AGC feels that in proposed subsection (b), the term "rigger" should not be added following the term "qualified person". Ms. Bradley contends that to include the term "rigger" would shift what is the crane operator's responsibility onto the rigger.

Responses to Comments No. 1 and No. 2:

With respect to the AGC's first suggested modification, the Board agrees and proposes to modify the sentence to delete the word "Crane" as indicated in the Board's Response to Comment No. 1 from Mr. Closson.

However, the Board does not believe it is necessary to delete existing language that describes the qualified person nor the terms "qualified person (rigger)" or "by a trainee" since the deletion of these terms would create ambiguity as to who is responsible for rigging matters. The rigger is responsible for attaching and detaching the load. The crane operator is responsible for making sure the load has been properly attached/detached before moving the load. The Board states that the principal purpose of this proposal is to eliminate such ambiguity.

Comment No. 3:

Ms. Bradley stated that the AGC is suggesting to delete proposed subsection (d)(4) as AGC believes this subsection is redundant and already adequately covered in subsection (g).

Response to Comment No. 3:

The Board agrees with Ms. Bradley that the proposed requirement is adequately addressed in proposed subsection (g) and will modify the proposal to delete originally proposed subsection (d)(4).

Comment No. 4:

Ms. Bradley stated the AGC questions the necessity of proposed subsection (h) and stated that loads are detached by a laborer and not a qualified person. Therefore, Ms. Bradley recommends deleting the two originally proposed terms "qualified" and "(rigger)."

Response to Comment No. 4:

Proposed subsection (h) requires a qualified person to release or detach the load and not a laborer. The American Petroleum Institute (API) Operation and Maintenance of Offshore Cranes, Recommended Practice 2D, Fifth Edition specifically defines a rigger as having the responsibility of attaching and detaching the load. Rigger training programs include specific instruction on how to attach and detach loads. The ANSI A10.42-2000 standard on rigger qualifications and responsibilities discusses operational requirements and states in Chapter 4.3, *"...employees necessary for the hooking or unhooking of the load"* from which it is clearly and unmistakably inferred that the rigging process involves both attaching and detaching the load. This process essentially defines what a qualified person (rigger) does. Consequently, the Board believes it is necessary that workers who perform rigging operations be qualified as riggers to do so. Therefore, the Board believes the two originally proposed terms "qualified" and "(rigger)" should not be deleted as suggested by AGC.

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

Mr. Craig Kappe, Safety Manager, Metro Ports, by letter dated July 17, 2008.

Comment:

Mr. Kappe described himself as a member of PMA who believes that marine terminals are operationally regulated by vertical standards contained in GISO, Article 14 and he asked that if marine terminals are in fact exempt from the requirements of Article 98 that a specific exemption be added to the proposal.

Response:

See the Board's Response to Mr. James MacDonald's written comment letter, dated July 17, 2008.

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

Mr. Bruce Wick, Director of Risk Management, by e-mail transmission to the OSHSB, dated July 17, 2008.

Comment:

Mr. Wick stated that on behalf of California Professional Association of Specialty Contractors (CALPASC), he supports the oral comments by Mr. Kevin Bland delivered to the Board at the July 17, 2008 Public Hearing in Costa Mesa, California.

Response:

See the Board's Responses to Mr. Kevin Bland's oral Comments Nos. 1, 2, and 3.

The Board acknowledges Mr. Wick's support for Mr. Bland's oral comments and appreciates his comment and participation in the Board's rulemaking process.

II. Oral Comments

Oral comments received at the July 17, 2008 Public Hearing in Costa Mesa, California.

Mr. Kevin Bland, representing the California Framing Contractors Association and the Residential Contractors Association.

Comment No. 1:

Mr. Bland discussed proposed Section 4999(b) and stated that the rigger needs to know what is being lifted and the weight of the load to determine the proper rigging method, and the crane operator must also know what is being lifted and the weight of the load in order to determine the load radius, and where the load is to be lifted and landed. The crane operator must not be excluded from the weight determination process in the event a crane load indicator is not available or malfunctioning.

Response to Comment No. 1:

The Board agrees that the responsibility for a safe lift falls on both the crane operator and the rigger as described by Mr. Bland. However, the Board does not agree that the proposed language in subsection (b) would abrogate those joint responsibilities and create an unsafe condition. On the contrary, Title 8 crane standards place the load determination responsibility on the crane operator who, by virtue of his/her certified competence, is competent and able to use the crane required load indicating devices to make an accurate load weight determination. This responsibility cannot be delegated to anyone including the rigger when a functioning load indicating device is present in the crane. In cases where a load indicating device is not present or is malfunctioning, Section 4999 requires the qualified person (rigger) to make a determination of the magnitude of the load and prevents the load from being lifted by the crane operator unless he or she has the load information. According to the proposed text of Section 4999, the responsibilities of the crane operator complement those of the rigger and vice versa, depending on the circumstances.

Therefore, the Board believes no modification of proposed subsection (b) is necessary.

Comment No. 2:

Mr. Bland expressed concerns that the words "...or other hoisting apparatus..." in proposed subsection (h) could lead to the conclusion that Section 4999 applies not only to cranes but also to machinery or equipment that could be rigged to lift a load.

Response to Comment No. 2:

The Board states that the terms of Section 4999, as far as cranes and the phrase "...other hoisting apparatus.." is concerned, is a direct reference to cranes, derricks, and hoists as clearly described in Section 4990, Scope which states in relevant part: "These orders apply to all crane, hoist and derrick operations...." The terms "crane", "hoist" and "derrick" are defined in Article 91, Section 4885, Definitions.

Therefore, the Board believes no modification of proposed subsection (h) is necessary.

Comment No. 3:

Mr. Bland stated that proposed subsection (h) should be clarified to make it clear that the qualified person (rigger) must ensure that the load is safe for detachment, but the actual detachment may be done by others.

Response to Comment No. 3:

The Board states that the American National Standard (ANSI) A10.42-2000, Safety Requirements for Rigging Qualifications and Responsibilities and the American Petroleum Institutes (API), Recommended Practice 2D, Fifth Edition, June 2003, Operation and Maintenance of Offshore Cranes, provide definitive evidence that the responsibilities of a qualified rigger is to attach and detach lifting equipment to loads or lifting devices. The intent of Section 4999, as clarified by the proposed amendments, is to ensure the employer understands that the responsibilities of the rigger are to attach and detach loads and that they be qualified to do so. The Board believes the proposal is consistent with the consensus opinion of industry experts as to what the responsibilities of a qualified person or rigger are and they include both attachment and detachment of the load.

Therefore, the Board believes no modification of the proposal with regard to Comment No. 3 from Mr. Bland is necessary.

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

Mr. Vince La Maestra, Assistant Coast Director of Accident Prevention, PMA.

Comment:

Mr. LaMeastra explained the unique nature of marine terminal cargo and load handling operations to the Board and stated that the PMA does not believe Section 4999 applies to the Marine Terminal Industry. He stated that the marine cargo handling industry is regulated by the vertical standards in Article 14.

Response:

The Board agrees with Mr. LaMaestra. See the Board's Response to Mr. James MacDonald's written comment letter, dated July 17, 2008.

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

Ms. Bo Bradley, AGC California.

Comment No.1:

Ms. Bradley reiterated oral comments at the Public Hearing that were expressed in her letter to the Board, dated July 15, 2008. She stated the AGC suggests that subsection (a) be modified to include that all loads should be addressed, not just crane loads.

Response to Comment No. 1:

See the Board's Response to Comment No. 1 from Ms. Bradley's written letter, dated July 15, 2008.

Comment No. 2:

Ms. Bradley expressed agreement with Mr. Kevin Bland's oral comments regarding proposed subsections (b) and (h). She stated that proposed subsection (d)(4) should be deleted as it duplicates the prohibition for boom side loading contained in the existing language of subsection (g).

Response to Comment No. 2:

See the Board's Responses to Mr. Kevin Bland's oral Comments Nos. 1, 2, and 3. With the regard to Ms. Bradley's recommendation to delete originally proposed subsection (d)(4) as redundant, the Board agrees that the issue of boom side loading is adequately addressed in renumbered subsection (g) and will modify the proposal to delete subsection (d)(4). See the Board's Response to Mr. Closson's written Comment No. 5.

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

Mr. Ken Maylone, International Union of Operating Engineers, Local 12.

Comment:

Mr. Maylone stated that he supports this proposal. He also expressed support for standards that would require the certification of riggers, and he made statements to the effect that another very important issue concerns the qualification and education of crane signal persons.

Response:

The issues of rigger certification and signal person qualifications and education are beyond the scope of the proposed rulemaking that was noticed to the public on May 30, 2008. Therefore, the Board will not modify the proposal in this respect.

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

MODIFICATIONS 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 August 27, 2008.

ADDITIONAL DOCUMENTS RELIED UPON

None.

ADDITIONAL DOCUMENTS INCORPORATED BY REFERENCE

None.

DETERMINATION OF MANDATE

This standard does 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 alternatives considered by the Board 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 adopted action.