

**OCCUPATIONAL SAFETY  
AND HEALTH STANDARDS BOARD**

2520 Venture Oaks Way, Suite 350  
Sacramento, CA 95833  
(916) 274-5721  
FAX (916) 274-5743  
Website address: [www.dir.ca.gov/oshsb](http://www.dir.ca.gov/oshsb)

**PROPOSED PETITION DECISION OF THE  
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD  
(PETITION FILE NO. 485)****INTRODUCTION**

The Occupational Safety and Health Standards Board (Board) received a petition on June 8, 2006, from Bradley D. Closson (Petitioner), representing Craft Forensic Services. The Petitioner requests the Board to amend Title 8, California Code of Regulations, Section 4884(b) through (e) of the General Industry Safety Orders (GISO), which contain criteria for design, construction, and installation of cranes.

Labor Code Section 142.2 permits interested persons to propose new or revised standards concerning occupational safety and health, and requires the Board to consider such proposals, and render a decision no later than six months following receipt. Further, as required by Labor Code Section 147, any proposed occupational safety or health standard received by the Board from a source other than the Division must be referred to the Division for evaluation, and the Division has 60 days after receipt to submit a report on the proposal.

**SUMMARY**

The Petitioner states that since the reorganization of California crane standards in 1986, crane users, owners, manufacturers and inspectors have relied on Section 4884, Scope, to establish minimum criteria for the "design, construction and installation" of cranes in California. Furthermore, the Petitioner states that he believes that the requirements of Section 4884 are "vital to California's crane safety effort...correct and in no way deficient."

However, the Petitioner stated that he and others have unsuccessfully sought over a period of two years to reclassify certain new technology cranes as mobile cranes because he alleges the Division of Occupational Safety and Health (Division) neither accepts nor enforces the American Society of Mechanical Engineers (ASME) standards incorporated by Section 4884(b)-(e). In his opinion, application of those standards would lead to the conclusion that the new technology cranes are mobile cranes and not tower cranes.

Therefore, the Petitioner opines that as long as the Division ignores these subsections and they remain as part of the GISO, they create confusion among the regulated public as to regulatory requirements, which he believes can lead to unsafe conditions.

Thus, the Petitioner is requesting that Section 4884(b) through (e) be deleted since, in his opinion, the Division is ignoring them and not applying them.

**DIVISION'S EVALUATION**

The Division's evaluation, received August 22, 2006, notes that Section 4884(b) through (d) establishes design standards for various types of cranes based on their date of manufacture with exceptions for older cranes. In addition to the specific Title 8 standards, the design of various types of cranes, derricks and hoists are covered by standards established by the American National Standards Institute (ANSI) and/or ASME. Section 4884 lists standards applicable to the date of crane manufacture thus generally allowing cranes to operate based on their original design. If that reference were eliminated many cranes would have to be modified to meet existing Title 8 standards.

The Division goes on to note that the ANSI/ASME standards have become the basic design and safety standards for the industry to provide safety for workers on or around cranes, hoists, or other equipment used in lifting service. The Division believes that to eliminate any reference to these standards would make Cal/OSHA less effective than federal OSHA. Furthermore, the Division states that deleting these sections, as petitioned, would not serve the crane industry and would promote an unsafe workplace for those employees who work on and around cranes.

The Division also notes that the deletion of Section 4884(e) would eliminate the option for professional engineers to design special purpose crane or derrick equipment not specifically covered by ANSI/ASME standards.

The Division noted that they would be convening an advisory committee attended by Board staff on August 30, 2006, to address some of the concerns of the Petitioner that are not specifically addressed in existing standards. The Division recommended that if the advisory committee was unable to resolve all of the concerns of the Petitioner, an advisory committee should review the proposal before the referenced ASME/ANSI standards are eliminated. However, based on the above rationale, the Division recommends that this petition be denied.

#### STAFF'S EVALUATION

Section 4884(b) through (e) establish standards for "design, construction and installation" of various types of cranes based on their date of manufacture, with exceptions for older cranes. These subsections incorporate by reference various ASME B30 standards applicable for specific crane types.

The Petitioner's opinion that the Division does not recognize Section 4884 is based on his unsuccessful attempts over a two year period to get the Division to classify certain innovative, new technology cranes (Potain MA 13 and MA 21 mobile self-erecting cranes) as ASME B30.5 mobile cranes rather than as ASME B30.3 tower cranes. He specifically referred to a June 1, 2006, meeting with the Division wherein the Petitioner interpreted a comment by the Division to mean that Section 4884 is irrelevant to the Division in deciding the classification of their cranes.

Although the issue of proper classification of new technology cranes motivated the petition, the Petitioner is specifically requesting the deletion of Section 4884(b) through (e) which

incorporates ASME B30 standards by reference. The classification of the Potain cranes and the matter of code interpretation by the Division, is thus outside the scope of this petition.

The Petitioner opines that the application of computer-aided design is creating a revolution in the design of cranes. The Petitioner speculated that more classification questions will arise in the future as computer design methods make it possible to design hybrid cranes that will contain features of more than one type of crane. Such appears to be the case with the Potain cranes, and an honest difference of opinion appears to exist between the Division and the Petitioner as to whether these cranes should be classified as tower cranes or mobile cranes. The Petitioner is of the opinion that since the manufacturer designs the crane (supposedly to specific ASME standards), they, and not the Division, should be able to decide which ASME standard applies to their product for regulatory purposes.

ASME, in response to an inquiry on the issue of classification, responded:

“The ASME B30 Standards Committee does not endorse products nor determine if a specific piece of equipment falls within a specific B30 standard. The manufacturer, based on their design, must determine which standard, based on scope and content, is applicable.”<sup>1</sup>

The Petitioner opines that this letter gives the manufacturer the sole responsibility for determining ASME B30 standards applicable to their crane. The Division does not agree with this unilateral responsibility for determining applicable standards.

If, as the Petitioner suggests, more computer-designed innovative cranes can be anticipated in the future, Board staff is of the opinion that new mechanisms for evaluating these cranes may be needed. However, this problem should be dealt with through nationally recognized consensus standards, rather than a patchwork of state interpretations.

The following subsections of Section 4884 are not proposed for deletion:

- (a) Requires compliance with other parts of GISO Group 13, Cranes and other Hoisting Equipment.
- (f) Requires cranes and derricks to be operated, tested, inspected and maintained in accordance with Title 8 safety orders.
- (g) All electrically powered cranes and derricks shall also comply with applicable electrical safety orders.

Thus, if subsections (b)-(e) were deleted from Section 4884 as requested, only standards found in other parts of Group 13 and other parts of the safety orders would apply.

At a minimum, the Board must retain incorporation of ASME B30.2 (Overhead and Gantry Cranes), B30.5 (Mobile and Locomotive Cranes) and B30.6 (Derricks) in order to be at least as effective as counterpart federal standards. Beyond that, the incorporation by reference of certain other B30 standards provide critical national consensus safety standards for many of the other

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<sup>1</sup> ASME letter dated January 20, 2006, from Joseph Wendler, PE, Secretary, B30 Standards Committee, to Mr. Eric Fidler, Manager, Product Safety [Manitowoc Crane Group]

crane types used in California.

A dispute about classification of a single type of new technology crane prompted this petition. This dispute is best settled by means less drastic than discarding nationally recognized standards currently referenced in Section 4884. For example, the appeals process is an option. Furthermore, as noted previously, an advisory committee was scheduled and convened on August 30, 2006, in Oakland to consider changes to Sections 344.70 (Tower Cranes – Operating Permit), 4885 (Definition – for Tower Crane, Self-Erector), and 5006.1 (Mobile Crane and Tower Crane – Operator Qualifications and Certification). The committee, which included the Petitioner, was unable to reach consensus satisfactory to the Petitioner on all his concerns. Therefore, Board staff suggests that the Petitioner may want to consider a separate petition to address provisions in Title 8 for new technology cranes.

However, with regard to the petition to delete GISO Section 4884(b) through (e), Board staff recommends denial.

#### CONCLUSION AND ORDER

The Occupational Safety and Health Standards Board has considered the petition of Bradley D. Closson (Petitioner), representing Craft Forensic Services, to make recommended changes to Section 4884(b) through (e) of the General Industry Safety Orders, which contain criteria for design, construction, and installation of cranes. The Board has also considered the recommendations of the Division and Board staff. For reasons stated in the preceding discussion, the Petition is hereby denied.