

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

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Attachment No. 2

INITIAL STATEMENT OF REASONS

CALIFORNIA CODE OF REGULATIONS

TITLE 8: Chapter 4, Subchapter 7, Article 96, Section 4968
of the General Industry Safety Orders.

Tower Crane Pre-Deceleration DevicesSUMMARY

The Occupational Safety and Health Standards Board (Board) initiates this rulemaking as the result of granting OSHSB Petition File No. 441, submitted by Mr. Bradley D. Closson, representing the North American Crane Bureau (NACB), at the July 18, 2002 Public Hearing in San Diego, California.

Existing Title 8, General Industry Safety Order (GISO) Section 4968 addresses specific safety device requirements for tower cranes, excluding mobile tower cranes. Subsection (d)(1) requires all tower cranes to be equipped with a safety device (also referred to as a limit device) that provides “predeceleration” before the top and bottom positions of the crane hook are reached.

The Petitioner requested changing the term “predeceleration” to “deceleration” because the term “predeceleration” is confusing and is not used in the federal tower crane regulations, nor in the American Society of Mechanical Engineers (ASME) B30.3 national consensus standard. Additionally, the Petitioner requested eliminating the requirement to have a limit device that provides predeceleration before the bottom position of the hook is reached, arguing that the work site may have several levels that the crane unloads at. The level for which the limit device is set to provide deceleration may not be the same level where most of the loading and unloading is done. Moreover, the Petitioner emphasized that this requirement does not exist in any federal regulation or national consensus standard.

In the Board’s July 18, 2002 Petition Decision, Board staff agreed with the Petitioner that the term “predeceleration” in Section 4968(d)(1) is confusing and that replacing this word with the term “deceleration” would add clarity and consistency to the regulation. Board staff also agreed with the Petitioner’s rationale for removing the requirement for a limit device that provides deceleration before the bottom position of the hook is reached. Board staff noted that Section 4968(d)(1) is intended to prevent “shock loading” of the crane due to the abrupt stopping of a rapidly descending load. Shock loading may cause damage to tower cranes such as, damage to individual structural components,

structural weakening through metal fatigue, or total structural failure of the crane. Board staff concluded that compliance with this requirement is problematic in that many construction sites have numerous crane unloading levels and deceleration limit devices to prevent shock-loading can only be set to one level; levels above the limit set would not be affected by the limit device. For example, if the deceleration device is set for the basement level of a building under construction, loading and unloading activities at any level above the basement level would not be protected from shock loading under this section. Additionally, if the deceleration limit device is set at the street level while the crane is loading and unloading at levels below the street level, the deceleration device would interfere with the normal operation of the crane by limiting the hoisting speed at the lower levels to the speed dictated by the deceleration device.

Also in the Board's Petition Decision, the Division of Occupational Safety and Health (Division) recommended deleting the language that excludes mobile tower cranes. The Division stated that this change is necessary to make Section 4968 consistent with the recent revision to Figure 15 in Section 4885 of Article 91 whereby cranes once classified as mobile tower cranes were reclassified as mobile cranes.

SPECIFIC PURPOSE AND FACTUAL BASIS OF PROPOSED ACTION

Section 4968 contains safety requirements for all tower cranes (excluding mobile tower cranes) and states that they are to be equipped with a number of safety devices such as, but not limited to: audible and visual alarms, limit controls, electronic instrumentation, etc. Subsection (d)(1) requires all tower cranes to be equipped with a safety device (also referred to as a limit device) that provides "predeceleration" before the top and bottom positions of the crane hook are reached.

A revision is proposed to delete the language that excludes mobile tower cranes in order to make Section 4968 consistent with the aforementioned revision made to Figure 15 of Article 91. It is also proposed to replace the word "predeceleration" with "deceleration" so as to clarify the requirements by using commonly industry terminology consistent with federal requirements and national consensus language contained in ASME B30.3. And, it is proposed to remove the requirement for a safety device that provides deceleration before the bottom position of the hook is reached, which will eliminate the requirement for a safety device that is impractical and that interferes with the normal operation of the crane.

The proposed amendments are necessary to ensure Section 4968 is consistent with national consensus standard language contained in ASME B30.3 and the recent reclassification of cranes depicted in Figure 15 in Section 4885 of Article 91.

DOCUMENTS RELIED UPON

1. Petition to Amend Section 4968(d)(1) of the General Industry Safety Orders dated February 15, 2001, filed on behalf of Bradley D. Closson, Executive Vice President, NACB Technical Services, Inc.

2. Occupational Safety and Health Standards Board Petition Decision adopted July 18, 2002, OSHSB Petition File No. 441, Mr. Bradley D. Closson, Petitioner, representing the North American Crane Bureau.
3. Occupational Safety and Health Standards Board Amended Petition Decision adopted March 20, 2003, OSHSB Petition File No. 441, Mr. Bradley D. Closson, Petitioner, representing the North American Crane Bureau.
4. The American Society of Mechanical Engineers (ASME) B30.3-1996 (Revision of ASME B30.3-1990) Tower Cranes, Chapter 3-1.

These documents are available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE ECONOMIC IMPACT
ON SMALL BUSINESSES

No reasonable alternatives were identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small businesses.

SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal will not mandate the use of specific technologies or equipment.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

No costs or savings to state agencies will result as a consequence of the proposed action.

Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

Impact on Businesses

The Board has made an initial determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states. The proposed amendment clarifies the regulation to eliminate confusion about the definition and regulatory requirements for trolley suspension hoists.

Cost Impact on Private Persons or Businesses

The Board is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under “Determination of Mandate.”

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does not impose nondiscretionary costs or savings on local agencies.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed regulation does not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because the proposed amendment will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, the regulation does not constitute a “new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution.”

The California Supreme Court has established that a “program” within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

The proposed regulation does not require local agencies to carry out the governmental function of providing services to the public. Rather, the regulation requires local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, the proposed regulation does not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

The proposed regulation does not impose unique requirements on local governments. All employers - state, local and private - will be required to comply with the prescribed standard.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendments may affect small businesses.

ASSESSMENT

The adoption of the proposed amendments to this regulation will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that 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 proposed action.