

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

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NOTICE OF PROPOSED MODIFICATIONS TO
CALIFORNIA CODE OF REGULATIONS
TITLE 8: Chapter 4, Subchapter 7, Article 91, Section 4885
of the General Industry Safety Orders

Definition of Trolley Suspended Hoists

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 regulations in which further modifications are being considered as a result of public comments and/or Board staff evaluation.

On October 18, 2001, the Standards Board held a Public Hearing to consider revisions to Title 8, Section 4885 of the General Industry Safety Orders, California Code of Regulations. The Standards Board received written comments on the proposed revisions. The regulations have been further modified as a result of the comments and Board consideration.

A copy of the full text of the regulation as originally proposed, and a copy of the modified text clearly indicating the further modifications, is attached for your information. In addition, a summary of all 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 April 6, 2002 at the Occupational Safety and Health Standards Board, 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833. These regulations 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, John D. MacLeod at (916) 274-5721.

REGULATIONS AS ORIGINALLY PROPOSED

STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

PROPOSED STATE STANDARD,
TITLE 8, CHAPTER 4

Amend Section 4885 as follows:

§4885. Definitions.

Crane. A machine for lifting or lowering a load and moving it horizontally, in which the hoisting mechanism is an integral part of the machine. It may be driven manually or by power and may be a fixed or a mobile machine, but does not include stackers, lift trucks, power shovels, backhoes, or excavators. Some of the common types of cranes are defined as follows:

- (A) Boom-Type Mobile Crane. A self-propelled crane equipped with a boom and mounted on a chassis which is supported on either rubber tires, crawler treads or railway wheels running on railroad tracks.
- (B) Cantilever Gantry Crane. A crane in which the bridge girders or trusses are extended transversely beyond the crane runway on one or both sides. Its runway may be either on the ground or elevated.
- (C) Crawler Crane. A crane consisting of a superstructure with power plant, operating machinery and boom, mounted on a base, equipped with crawler treads for travel.
- (D) Floor Operated Crane. A crane which is pendant or nonconductive rope controlled by an operator on the floor or an independent platform.
- (E) Gantry Crane. A crane similar to an overhead traveling crane, except that the bridge for carrying the trolley or trolleys is rigidly supported on two or more movable legs running on fixed rails or other runway.
- (1) Container Handling Yard Crane. Rubber tired gantry crane.
- (F) Hammerhead Crane. A rotating, counterbalanced cantilever, equipped with one or more trolleys and supported by a pivot or turntable on a traveling or fixed tower.
- (G) Jib Crane. A fixed crane consisting of a supported vertical member from which extends a horizontal swinging arm carrying a trolley hoist or other hoisting mechanism.
- (H) Locomotive Crane. A boom-type mobile crane consisting of a self-propelled car operating on a railroad track, upon which is mounted a rotating body supporting the power-operated mechanism, together with a boom capable of being raised or lowered at its head (outer end) from which is led the wire rope or chain connected to the hoisting mechanism, for raising or lowering a load.
- (I) Monorail Hoist. A trolley suspension crane hoist, whose trolley is suspended from a single rail. This type of crane hoist, when used to move a load horizontally, is subject to Group 13 Regulations.
- ~~(H)~~(J) Motor Truck Crane. A boom-type mobile crane mounted on a motor truck frame or rubber-tired chassis. It consists of a rotating superstructure with power plant, operating mechanism and boom.

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~~(J)~~(K) Overhead Traveling or Bridge Crane. A crane on a pair of parallel elevated runways, adapted to lift and lower a load and carry it horizontally parallel to, or at right angles to, the runways or both; and consisting of one or more trolleys operating on the bridge which in turn consists of one or more girders or trusses mounted on trucks operating on the elevated runways, with its operation limited to the area between the runways.

~~(K)~~(L) Pillar Crane. A fixed crane consisting of a vertical member held in position at the base to resist overturning moment with constant-radius revolving boom supported at the outer end by a tension member.

~~(L)~~(M) Pillar Jib Crane. A fixed crane consisting of a vertical member held at the base with a horizontal revolving arm carrying a trolley.

~~(M)~~(N) Polar Crane. A bridge or gantry type crane which travels on a circular track.

~~(N)~~(O) Portal Crane (Whirley Type). A gantry crane without trolley motion, which has a boom attached to a revolving crane mounted on a gantry, with the boom capable of being raised or lowered at its head (outer end). Portal cranes may be fixed or mobile.

~~(O)~~(P) Power Operated Crane. A crane whose mechanism is driven by electric, air, hydraulic or internal combustion means.

~~(P)~~(Q) Pulpit-Operated Crane. A crane operated from a fixed operation station not a hazard to the crane.

~~(Q)~~(R) Remote-Operated Crane. A crane controlled by an operator not in a pulpit or in a cab hooked to the crane, by any method other than pendant or rope control.

~~(R)~~(S) Standby Crane. A crane which is not in regular service but which is used occasionally or intermittently as required.

~~(S)~~(T) Semi-Gantry or Single Leg Crane. A gantry crane with 1 end of the bridge rigidly supported on one or more movable legs, running on a fixed rail or runway, the other end of the bridge being supported by a truck running on an elevated rail or runway.

~~(T)~~(U) Semi-Portal Crane. A portal crane mounted on a semi-gantry frame instead of a gantry frame.

~~(U)~~(V) Tower Crane. A crane in which a boom, swinging jib or other structural member is mounted on a vertical mast or tower.

(1) Tower Crane (Climber). A crane erected upon and supported by a building or other structure which may be raised or lowered to different floors or levels of the building or structure.

(2) Tower Crane (Free Standing). A crane with a horizontally swinging, usually non-luffing boom which may be on a fixed base or mounted on rails.

(3) Tower Crane (Mobile). A tower crane which is mounted on a crawler, truck or similar carrier for travel or transit.

(4) Tower Crane (Self-Erector). A mobile tower crane that is truck carrier mounted and capable of self-erection.

~~(V)~~(W) Traveling Jib Crane. A jib crane with the vertical member running on a track, its upper end guided by a parallel overhead track.

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PROPOSED STATE STANDARD,
TITLE 8, CHAPTER 4

(X) Trolley Suspension Hoist. A crane hoist whose upper suspension member is a trolley for the purpose of running the hoist below a suitable runway. It may be either floor or cage-operated. This type of crane hoist, when used to move a load horizontally, is subject to Group 13 Regulations.

~~(W)~~(Y) Wall Crane. A crane having jib with or without a trolley and supported from a side wall or line of columns of a building.

~~(X)~~(Z) Wheel Mounted Crane. A crane consisting of a rotating superstructure with power plant, operating machinery and boom, mounted on a base or platform equipped with axles and rubber-tired wheels for travel. The base is usually propelled by the engine in the superstructure, but it may be equipped with a separate engine controlled from the superstructure. Its function is to hoist and swing loads at various radii.

Hoist. An apparatus for raising or lowering a load by the application of a pulling force, but does not include a car or platform riding in guides. Some common types of hoists are defined as follows:

(A) Base-Mounted Electric Hoist. A hoist similar to an overhead electric hoist, except that it has a base or feet and may be mounted overhead, on a vertical plane, or in any position for which it is designed.

(B) Clevis Suspension Hoist. A hoist whose upper suspension member is a clevis.

(C) Hook Suspension Hoist. A hoist whose upper suspension member is a hook.

(D) Monorail Hoist. A trolley suspension hoist whose trolley is suspended from a single rail. When the monorail hoist is used to move a load horizontally, it shall be considered a crane and subject to Group 13 Regulations.

(E) Overhead Electric Hoist. A motor-driven hoist having one or more drums or sheave for rope or chain and supported overhead. It may be fixed or traveling.

(F) Simple Drum Hoist. A hoist with one or more drums controlled by manually operated clutches, brakes, or ratchet and pawl on drum, and control levers, which is operated by hand or by power.

NOTE: This type of hoist is known to the trade as a contractor's hoist and is usually a portable unit.

(i) Double-Drum Hoist. A simple drum hoist having two independent hoisting drums.

(ii) Single Drum Hoist. A simple drum hoist having only one hoisting drum.

(iii) Single Fixed Drum Hoist. A single-drum hoist with the drum geared directly to the power unit instead of by means of friction clutches.

(G) Trolley Suspension Hoist. A hoist whose upper suspension member is a trolley for the purpose of running the hoist below a suitable runway. It may be either floor or cage-operated. When the Trolley Suspension Hoist is used to move a load horizontally, it shall be considered a crane and subject to Group 13 Regulations.

NOTE: Authority and reference cited: Section 142.3, Labor Code.

PROPOSED MODIFICATIONS
(Modifications are indicated by
bold, underline wording for new language and
bold, strikeout for deleted language.)
(Only modified pages are included.)

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- (I) Monorail Hoist Crane. A trolley suspension crane hoist, whose trolley is suspended from a single rail. This type of crane hoist, when used to move a load horizontally, is subject to Group 13 Regulations. A crane whose hoisting mechanism is suspended from, and is an integral part of, one or more trolleys mounted on a single track.**
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Track. A structural member that supports the trolley or crane wheels.

NOTE: Authority and reference cited: Section 142.3, Labor Code.

SUMMARY AND RESPONSE TO COMMENTS

SUMMARY AND RESPONSE TO ORAL AND WRITTEN COMMENTS

I. Written Comments

Mr. Bradley D. Closson, Executive Vice-President, North American Crane Bureau, by letter dated September 4, 2001.

Comment:

Mr. Closson states that the proposed definitions and changes will add to the confusion that this rulemaking was intended to address and contradict current published definitions.

Mr. Closson's issues are as follows:

Issue #1: Mr. Closson expressed concern that using the word "Hoist" in "Monorail Hoist" and "Trolley Suspension Hoist" under the subsection defining cranes would create confusion between the two equipment categories.

Issue #2: Mr. Closson states that because this proposal does not clearly indicate that the hoist mechanism needs to be by definition an integral part of the crane this proposed language would blur and possibly contradict currently published definitions of cranes.

Issue #3: Mr. Closson states that the use of the word "runways" in the proposed definitions would restrict the application of monorail hoists and trolley suspension hoists only to installations in or on buildings and exclude commonly used applications existing outdoors with no building as support.

Issue #4: Mr. Closson notes that the addition of the reference that the hoist is subject to Group 13 regulations, when used to move a load horizontally, is redundant and not useful since it does not direct the reader to specific applicable sections within Group 13.

Issue #5: Mr. Closson states that federal regulations do not address the crane configurations addressed by the proposed amendment and that all of the "underhung" equipment addressed in ASME B30 11, 16 and 17 is addressed only under the federal "General Duty Clause."

Issue #6: Mr. Closson agrees that the proposed amendments do not change regulatory requirements and only constitute a clarification of existing requirements.

As a side issue, Mr. Closson notes that there are currently defined "cranes" such as jib cranes, pillar cranes, and wall cranes that can be defined as monorail cranes, and that defined overhead crane configurations can be manufactured as a monorail system.

Mr. Closson makes the following recommendations:

- 1) Change "Monorail Hoist" to "Monorail Crane" to reflect the current equipment category.
- 2) Change the definition of the "monorail (hoist) crane" to read "Monorail Crane – A crane whose hoist mechanism is suspended from, and integral to, one or more trolleys that are supported by a single track."
- 3) Delete the phrase, "It may be either floor or cage-operated." in the definition for "Trolley Suspension Hoist" because the methods of control do not uniformly affect the safety issues for cranes.

- 4) Add a new definition for the term “Track” as used in the monorail definition.
- 5) Delete the proposed wording “When used to move a load horizontally the hoist shall be considered a crane and subject to Group 13 regulations” under both “Crane” and “Hoist” equipment groups.
- 6) Delete the proposed “crane” definition for “Trolley Suspension Hoist” as the term is not used in the revised definition of a “monorail crane.”
- 7) If additional clarification is desired a “note” could be added after the definitions of “Monorail Crane” and “Monorail Hoist” clarifying that the basic criteria in the definitions of “Crane and Hoist” should be reviewed when determining which requirements in Group 13 are applicable.

Response:

Recommendations #1 and 2: The Board agrees with Mr. Closson that his recommendations will clarify that when a monorail system is used to lift and lower a load and move it horizontally the monorail system is defined as a crane and subject to crane regulations. The Board agrees to change the phrase “Monorail Hoist” to “Monorail Crane” under the crane subsection for Crane, and to define it as “a crane whose hoist mechanism is suspended from, and integral to, one or more trolleys that are supported by a single track.”

Recommendations #3 and 6: The Board further agrees to delete the definition for “Trolley Suspension Hoist” since the term is not used in the revised definition of a “monorail crane” or in any other safety orders in Title 8, Chapter 4. By deleting the definition for trolley suspension hoist, Mr. Closson’s third recommendation to delete the phrase “It may be either floor or cage-operated.” in the definition for “Trolley Suspension Hoist” is no longer an issue.

Recommendation #4: The Board agrees with Mr. Closson to add the definition for the term “Track” as used in the monorail definition for clarification.

Recommendation #5: The Board agrees to delete the proposed wording, “When used to move a load horizontally the hoist shall be considered a crane and subject to Group 13 Regulations,” under both “Crane” and “Hoist” equipment groups as it does not add specific regulatory reference.

Recommendation #7: The Board does not consider it necessary to add a “note” after the definitions of “Monorail Crane” and “Monorail Hoist” clarifying that the basic criteria in the definitions of “Crane and Hoist” should be reviewed when determining the applicability of requirements under Group 13, because such review is fundamental to the use and application of the GISO, and is implied in “Section 3200. Purpose,” which states, “Every employer should provide their supervisory staff with a copy of these orders and assure that each supervisor is familiar with those sections pertaining to the operations under their supervision.”

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

II. Oral Comments

No oral comments were received at the October 18, 2001 Public Hearing held in Oakland, California.