

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

TITLE 8: Division 1, Chapter 4, Subchapter 4. Construction Safety Orders
Article 12. Pile Driving and Pile Extraction

Modify Section 1600(g)(1)(B) as follows:

§1600. Pile Driving.

(g) Sheet Pile Access.

(1) If an employee is required to go aloft on sheet piling, the employee shall use an aerial device or ladder.

(A) Employee(s) shall not ride the hammer, crane load block or overhaul ball.

(B) A crane suspended personnel platform may be used for access if used in accordance with Section 1616.6(p) 5004.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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TITLE 8: Division 1, Chapter 4, Subchapter 4. Construction Safety Orders
Article 15. Cranes and Derricks in Construction

Amend Section 1610.3 as follows:

§ 1610.3. Definitions.

For example means “one example, although there are others.”

Forklift. A self-loading truck, equipped with load carriage and forks for transporting and tiering loads. [Ed note: ANSI/ITSDF B56.1-2009]

Free fall (of the load line) means that only the brake is used to regulate the descent of the load line (the drive mechanism is not used to drive the load down faster or retard its lowering).

Power lines. Electric transmission and distribution lines.

Powered industrial truck. A mobile power-propelled truck used to carry, push, pull, lift, stack, or tier material. [Ed note: ANSI/ITSDF B56.1-2009]

Procedures. Include, but are not limited to: Instructions, diagrams, recommendations, warnings, specifications, protocols and limitations.

RPE. Registered Professional Engineer.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 1610.4 as follows:

§ 1610.4. Design, Construction and Testing.

The following requirements apply to equipment that has a manufacturer rated hoisting/lifting capacity of more than 2,000 pounds.

(f) In addition to the foregoing provisions of this section, proof load tests and examinations of cranes and their accessory gear shall be conducted as required by General Industry Safety Orders, Section 5022.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

Amend Section 1610.9 as follows:

§ 1610.9. Equipment over Three Tons Rated Capacity.

(a) All cranes and derricks used in lifting service, exceeding three tons rated capacity, and their accessory gear shall not be used until the employer has ascertained that such equipment has been certificated as evidenced by current and valid documents attesting to compliance with the following:

(1) Tests and examinations shall be conducted annually by a currently licensed certifying agency or designee listed in the certifying agency license, and a certificate shall be issued by the certifying agency;

(2) Certificates attesting to current compliance with testing and examination standards of requirements shall be maintained for each crane or derrick and shall be in a form acceptable to the Division. (See Section 4885, Plate V.)

(A) A copy of such certificate shall be available with each crane and derrick or at the project site.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 1611.1 as follows:

§1611.1 Assembly/Disassembly - Selection of Manufacturer or Employer Procedures.

When assembling or disassembling equipment (or attachments), the employer shall ~~must~~ comply with all applicable manufacturer prohibitions and shall ~~must~~ comply with either:

- (a) Manufacturer procedures applicable to assembly and disassembly, or
- (b) Employer procedures for assembly and disassembly. Employer procedures may be used only where the employer can demonstrate that the procedures used meet the requirements in Section 1611.4. Note: The employer shall ~~must~~ follow manufacturer procedures when an employer uses synthetic slings during assembly or disassembly rigging. [See Section 1611.2(r).]

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

Amend Section 1612.3 as follows:

§ 1612.3. Power Line Safety (All Voltages) - Equipment Operations Closer Than the Table A Zone.

(a) Equipment operations in which any part of the equipment, load line, or load (including rigging and lifting accessories) is closer than the minimum approach distance under Table A of Section 1612.1 to an energized power line is prohibited.

(b) Except where overhead electrical distribution and transmission lines have been de-energized and visibly grounded, the operation, erection, or handling of tools, machinery, apparatus, supplies, or materials, or any part thereof, over energized overhead high-voltage lines shall be prohibited. [Ed note: clarification based on 2946(b)]

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 1613 as follows:

§1613. Inspections and Repairs.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

Amend Section 1613.2 as follows:

§1613.2. Inspections - Repaired/Adjusted Equipment.

(a) Equipment that has had a repair or adjustment that relates to safe operation (such as: A repair or adjustment to a safety device or operator aid, or to a critical part of a control system, power plant, braking system, ~~load-sustaining structural components~~, load hook, or in-use operating mechanism), shall be inspected by a qualified person ~~certificating agency~~ after such a repair or adjustment has been completed, prior to initial use.

Note: Load-sustaining structural components shall be repaired and inspected in accordance with sections 1613.11 and 1613.12.

(b) The inspection shall meet all of the following requirements:

(1) The qualified person ~~certificating agency~~ shall determine if the repair/adjustment meets manufacturer equipment criteria (where applicable and available).

(2) Where manufacturer equipment criteria are unavailable or inapplicable, the qualified person ~~certificating agency~~ shall:

(A) Determine if a registered professional engineer (RPE) is needed to develop criteria for the repair/adjustment. If an RPE is not needed, the employer shall ensure that the criteria are developed by the qualified person. If an RPE is needed, the employer shall ensure that they are developed by an RPE.

(B) Determine if the repair/adjustment meets the criteria developed in accordance with subsection (b)(a)(2)(A).

(3) The inspection shall include functional testing of the repaired/adjusted parts and other components that may be affected by the repair/adjustment.

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(c) ~~(b)~~ Equipment shall not be used until an inspection under this section demonstrates that the repair/adjustment meets the requirements of subsection (b)~~(a)~~(1) [or, where applicable, subsection (b)~~(a)~~(2)].

NOTES: 1. These inspections may be performed by a qualified person for cranes not exceeding 3 tons rated capacity.

2. Proof load tests are required in the case of major modifications or repairs to important structural components, and shall comply with General Industry Safety Orders, Section 5022.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

Amend Section 1613.10 as follows:

§1613.10. Inspections - Wire Rope.

(a) Shift inspection.

(2) Apparent deficiencies.

(A) Category I. Apparent deficiencies in this category include the following:

1. Significant distortion of the wire rope structure such as kinking, crushing, unstranding, birdcaging, signs of core failure or steel core protrusion between the outer strands.
2. Significant corrosion.
3. Electric arc damage (from a source other than power lines) or heat damage.
4. Improperly applied end connections.
5. Significantly corroded, cracked, bent, or worn end connections (such as from severe service).

(B) Category II. Apparent deficiencies in this category are:

1. Visible broken wires, as follows:

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- a. In running wire ropes: Six randomly distributed broken wires in one rope lay or three broken wires in one strand in one rope lay, where a rope lay is the length along the rope in which one strand makes a complete revolution around the rope.
 - b. In rotation resistant ropes: Two randomly distributed broken wires in six rope diameters or four randomly distributed broken wires in 30 rope diameters.
 - c. In pendants or standing wire ropes: More than two broken wires in one rope lay located in rope beyond end connections and/or more than one broken wire in a rope lay located at an end connection.
2. A diameter reduction of more than 5% from nominal diameter.
 3. Wear of 1/3 the original diameter of outside individual wires. *[Added per 5031(d)(2) Note 2]*
- (C) Category III. Apparent deficiencies in this category include the following:
1. In rotation resistant wire rope, core protrusion or other distortion indicating core failure.
 2. Prior electrical contact with a power line.
 3. A broken strand.
- (3) Critical review items. The qualified person shall give particular attention to all of the following:
- (A) Rotation resistant wire rope in use.
 - (B) Wire rope being used for boom hoists and luffing hoists, particularly at reverse bends.
 - (C) Wire rope at flange points, crossover points and repetitive pickup points on drums.
 - (D) Wire rope at or near terminal ends.
 - (E) Wire rope in contact with saddles, equalizer sheaves or other sheaves where rope travel is limited.
- (4) Removal from service.
- (A) If a deficiency in Category I [see subsection (a)(2)(A)] is identified, an immediate determination shall be made by the qualified person as to whether the deficiency constitutes a

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safety hazard. If the deficiency is determined to constitute a safety hazard, operations involving use of the wire rope in question shall be prohibited until:

1. The wire rope is replaced, or
2. If the deficiency is localized, the problem is corrected by severing the wire rope in two; the undamaged portion may continue to be used. Joining lengths of wire rope by splicing is prohibited. If a rope is shortened under this section, the employer shall ensure that the drum will still have two wraps of wire when the load and/or boom is in its lowest position.

(B) If a deficiency in Category II [see subsection (a)(2)(B)] is identified, operations involving use of the wire rope in question shall be prohibited until:

1. The employer complies with the wire rope manufacturer's established criterion for removal from service or a different criterion that the wire rope manufacturer has approved in writing for that specific wire rope,
2. The wire rope is replaced, or
3. If the deficiency is localized, the problem is corrected by severing the wire rope in two; the undamaged portion may continue to be used. Joining lengths of wire rope by splicing is prohibited. If a rope is shortened under this section, the employer shall ensure that the drum will still have two wraps of wire when the load and/or boom is in its lowest position.

(C) If a deficiency in Category III is identified, operations involving use of the wire rope in question shall be prohibited until:

1. The wire rope is replaced, or
2. If the deficiency (other than power line contact) is localized, the problem is corrected by severing the wire rope in two; the undamaged portion may continue to be used. Joining lengths of wire rope by splicing is prohibited. Repair of wire rope that contacted an energized power line is also prohibited. If a rope is shortened under this section, the employer shall ensure that the drum will still have two wraps of wire when the load and/or boom is in its lowest position.

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(D) Where a wire rope is required to be removed from service under this section, either the equipment (as a whole) or the hoist with that wire rope shall be tagged-out, in accordance with Section 1616.1(g)(1), until the wire rope is repaired or replaced.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

Add new Section 1613.11 as follows:

§1613.11. Repairs.

Repairs to load sustaining members and other critical crane and derrick parts shall be performed in accordance with the provisions of General Industry Safety Orders, Section 5034(e) and (f).

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

Add new Section 1613.12 as follows:

§1613.12. Damaged Booms.

Prior to further use, boom sections or boom suspension components that have been damaged shall be repaired as prescribed by General Industry Safety Orders, Section 5035.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 1615.1 as follows:

§1615.1. Safety Devices.

(a) Safety devices. The following safety devices are required on all equipment covered by Article 15, unless otherwise specified:

(1) Crane level indicator.

(A) The equipment shall have a crane level indicator that is either built into the equipment or is available on the equipment.

(B) If a built-in crane level indicator is not working properly, it shall be tagged-out or removed. If a removable crane level indicator is not working properly, it shall be removed.

(C) This requirement does not apply to portal cranes, derricks, floating cranes/derricks and land cranes/derricks on barges, pontoons, vessels or other means of flotation.

(2) Boom stops, except for derricks and hydraulic booms.

(3) Jib stops (if a jib is attached), except for derricks.

(4) Equipment with foot pedal brakes shall have locks.

(5) Hydraulic outrigger jacks and hydraulic stabilizer jacks shall have an integral holding device/check valve.

(6) Equipment on rails shall have rail clamps and rail stops, except for portal cranes.

(7) Horn

(A) The equipment shall have a horn that is either built into the equipment or is on the equipment and immediately available to the operator.

(B) If a built-in horn is not working properly, it shall be tagged-out or removed. If a removable horn is not working properly, it shall be removed.

(8) Boom hoist limiting device.

(9) Luffing jib limiting device.

(10) Anti two-blocking device.

(b) Proper operation required.

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Operations shall not begin unless all of the devices listed in this section are in proper working order. If a device stops working properly during operations, the operator shall safely stop operations. If any of the devices listed in this section are not in proper working order, the equipment shall be taken out of service and operations shall not resume until the device is again working properly. See Section 1616.1 (Operation). Alternative measures are not permitted to be used.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

Amend Section 1615.2 as follows:

§1615.2. Operational Aids.

(d) Category I operational aids. ~~[Reserved] Operational aids listed in this section that are not working properly shall be repaired no later than 7 calendar days after the deficiency occurs. Exception: If the employer documents that it has ordered the necessary parts within 7 calendar days of the occurrence of the deficiency, the repair shall be completed within 7 calendar days of receipt of the parts. See Section 1616.1(j) for additional requirements.~~

(1) ~~Boom hoist limiting device. [Ed note: relocate to 1615.1(a)(8)]~~

(A) ~~For equipment manufactured after December 16, 1969, a boom hoist limiting device is required.~~

~~Temporary alternative measures (use at least one). One or more of the following methods shall be used:~~

~~1. Use a boom angle indicator.~~

~~2. Clearly mark the boom hoist cable (so that it can easily be seen by the operator) at a point that will give the operator sufficient time to stop the hoist to keep the boom within the minimum allowable radius. In addition, install mirrors or remote video cameras and displays if necessary for the operator to see the mark.~~

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3. Clearly mark the boom hoist cable (so that it can easily be seen by a spotter) at a point that will give the spotter sufficient time to signal the operator and have the operator stop the hoist to keep the boom within the minimum allowable radius.

~~(B) If the equipment was manufactured on or before December 16, 1969, and is not equipped with a boom hoist limiting device, at least one of the measures in subsections (d)(1)(A)1-3 shall be used.~~

~~(2) Luffing jib limiting device. [Ed note: relocated to 1615.1(a)(9)]~~

~~Equipment with a luffing jib shall have a luffing jib limiting device.~~

~~Temporary alternative measures are the same as in subsection (d)(1)(A), except to limit the movement of the luffing jib rather than the boom hoist.~~

~~(3) Anti two blocking device. [Ed note: relocated to 1615.1(a)(10)]~~

~~(A) Telescopic boom cranes manufactured after February 28, 1992, shall be equipped with a device which automatically prevents damage from contact between the load block, overhaul ball, or similar component, and the boom tip (or fixed upper block or similar component). The device(s) shall prevent such damage at all points where two blocking could occur.~~

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

Amend Section 1616.1 as follows:

§1616.1. Operation.

(o) During lifting operations, the load, boom, or other parts of the equipment shall not contact any obstruction in a way which could cause falling material or damage to the boom.

(x) ~~The operator shall obey a stop (or emergency stop) signal, irrespective of who gives it. Only qualified persons shall be permitted to give signals.~~

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Exception: An emergency stop signal may be given by any person. *[Based on 5001(b)]*

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

Amend Section 1617.1 as follows:

§1617.1. Signals - General Requirements.

(a) A signal person shall be provided in each of the following situations:

- (1) The point of operation, meaning the load travel or the area near or at load placement, is not in full and direct view of the operator. *[Modified for consistency with 5001(a)]*
- (2) When the equipment is traveling, the view in the direction of travel is obstructed.
- (3) Due to site-specific safety concerns, either the operator or the person handling the load determines that it is necessary.

(b) Only qualified persons shall be permitted to give signals.

Exception: An emergency stop signal may be given by any person.

(c) Types of signals. Signals to operators shall be by hand, voice, or audible.

(d) ~~Hand~~ Signals.

- (1) A uniform signal system shall be used on all operations and if hand signals are used, they shall be clearly understood by the operator. (NOTE: For recommended hand signals, see General Industry Safety Orders, Section 5001, Plate I.)

Exception: Where an operation or use of an attachment is not covered in the recommended hand signals, Plate I, nonstandard hand signals may be used in accordance with subsection

(d)(2).

- (2) Non-standard hand signals. When using non-standard hand signals, the signal person, operator, and lift director (where there is one) shall contact each other prior to the operation and agree on the non-standard hand signals that will be used.

- (3) There shall be conspicuously posted in the vicinity of the hoisting operations, a legible chart depicting and explaining the system of signals used.

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(4) Hand signal charts shall be either posted on the equipment or conspicuously posted in the vicinity of the hoisting operations.

(e) Suitability. The signals used (hand, voice, or audible), and means of transmitting the signals to the operator (such as direct line of sight, video, radio, etc.), shall be appropriate for the site conditions.

(f) During operations requiring signals, the ability to transmit signals between the operator and signal person shall be maintained. If that ability is interrupted at any time, the operator shall safely stop operations requiring signals until it is reestablished and a proper signal is given and understood.

(1) Signal systems other than manual shall be protected against unauthorized use, breakage, weather or obstruction which will interfere with safe operation. In the event of any known malfunction, an alternate signal system shall be used or all motion shall be stopped.

(g) If the operator becomes aware of a safety problem and needs to communicate with the signal person, the operator shall safely stop operations. Operations shall not resume until the operator and signal person agree that the problem has been resolved.

(h) Only one person shall give signals to a crane/derrick at a time, except in circumstances covered by subsection (i).

(i) ~~Anyone who becomes aware of a safety problem must alert the operator or signal person by giving the stop or emergency stop signal. (NOTE: Section 1616.1(x) requires the operator to obey a stop or emergency stop signal).~~ The operator shall obey an emergency stop signal from any individual who is involved in the hoisting operation or who is responsible for the direction of the hoisting operation.

(j) All directions given to the operator by the signal person shall be given from the operator's direction perspective.

(k) Communication with multiple cranes/derricks. Where a signal person(s) is in communication with more than one crane/derrick, a system shall be used for identifying the crane/derrick each signal is for, as follows:

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(1) For each signal, prior to giving the function/direction, the signal person shall identify the crane/derrick the signal is for, or

(2) Shall use an equally effective method of identifying which crane/derrick the signal is for.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

Amend Section 1617.2 as follows:

§1617.2. Signals - Radio, Telephone or Other Electronic Transmission of Signals.

(a) The device(s) used to transmit signals shall be tested on site before beginning operations to ensure that the signal transmission is effective, clear, and reliable.

(b) Signal transmission shall be through a dedicated channel, except:

(1) Multiple cranes/derricks and one or more signal persons may share a dedicated channel for the purpose of coordinating operations.

(2) Where a crane is being operated on or adjacent to railroad tracks, and the actions of the crane operator need to be coordinated with the movement of other equipment or trains on the same or adjacent tracks.

(c) The operator's reception of signals shall be by a hands-free system.

(d) The signal person shall audibly or visually signal the operator if he/she becomes aware that communication with the operator has been interrupted during hoisting operations and the operator shall safely stop operations in accordance with Section 1617.1(f).

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 1617.3 as follows:

§1617.3. Signals – Voice Signals – Additional Requirements.

(a) Prior to beginning operations, the operator, signal person and lift director (if there is one), shall contact each other and agree on the voice signals that will be used. Once the voice signals are agreed upon, these workers need not meet again to discuss voice signals unless another worker is added or substituted, there is confusion about the voice signals, or a voice signal is to be changed.

~~(b) Each voice signal shall contain the following three elements, given in the following order: function (such as hoist, boom, etc.), direction; distance and/or speed; function, stop command.~~

(b) ~~(e)~~ The operator, signal person and lift director (if there is one), shall be able to effectively communicate in the language used.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 1618.1 as follows:

§1618.1. Operator Qualification and Certification.

(a) Qualifications and Certification...

(b) Option (1): Certification by an accredited crane operator certifying entity.

(1) Qualifications. The employer shall only permit operators who have a valid certificate of competency (certificate) issued in accordance with this section by an Accredited Certifying Entity for the type of crane to be used to operate a crane covered by this section. Certificates shall be issued to operators who:

(A) Pass a physical examination conducted by a physician which at a minimum shall include the examination criteria specified in the American Society of Mechanical Engineers (ASME) B30.5-2000 standard, Chapter 5-3.1.2(a)(1-5, 7, 8) or the U.S. Department of Transportation (US DOT) physical examination requirements contained in 49 CFR Sections 391.41 through 391.49.

(B) Pass a substance abuse test. The level of testing shall be consistent with the standard practice for the industry where the crane is in use and this test shall be conducted by a recognized laboratory service;

(C) Pass a written examination developed, validated, and administered in accordance with the Standards for Educational and Psychological Testing (Copyright 1999) published jointly by the Joint Committee of the American Educational Research Association, the American Psychological Association, and the National Council in Measurement in Education. The exam shall test knowledge and skills identified as necessary for safe crane operations and shall, at a minimum, include the following:

1. Operational characteristics and controls, including characteristic and performance questions appropriate to the crane type for which qualification is sought;
2. Emergency control skills, such as a response to fire, power line contact, loss of stability, or control malfunction;

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3. A demonstration of basic arithmetic skills necessary for crane operation and the ability to read and comprehend the crane manufacturer's operation and maintenance instruction materials, including load capacity information (load charts) for the crane for which certification is sought;

4. Knowledge of chapters 5-0 through 5-3 of The American Society of Mechanical Engineers (ASME) B30.5-2000 and B30.5a-2002 Addenda to the standard for mobile and locomotive cranes or chapters 4-0 through 4-3 of the ASME B30.4-1996 standard for portal, tower, and pedestal cranes or Chapter 3-3 of the ASME B 30.3-1996 standard for Construction Tower Cranes, depending on the type of crane(s) the operator intends to operate.

5. Procedures for preventing and responding to power line contact.

6. Technical knowledge applicable to:

(i) The suitability of the supporting ground and surface to handle expected loads.

(ii) Site hazards.

(iii) Site access.

(D) Pass a "hands-on" examination to demonstrate proficiency in operating the specific type of crane, which at a minimum shall include the following:

1. Ability to recognize, from visual and auditory observation, the items listed in Section 1613.4 (shift inspection).

2. Operational and maneuvering skills.

3. Application of load chart information.

4. Application of safe shut-down and securing procedures.

(2) Certification. Certificates shall be valid for a maximum of five (5) years. An Accredited Certifying Entity shall issue the certificate of competency to operators who successfully demonstrate the qualifications set forth in subsection (b)(1)(A)-(b)(1)(D) of this section.

(A) An operator will be deemed qualified to operate a particular piece of equipment if the operator is certified under subsection (b) of this section for that type and capacity of equipment or for higher-capacity equipment of that type. If no accredited testing agency

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offers certification examinations for a particular type and/or capacity of equipment, an operator will be deemed qualified to operate that equipment if the operator has been certified for the type/capacity that is most similar to that equipment and for which a certification examination is available. The operator's certificate shall state the type/capacity of equipment for which the operator is certified.

(B) A certification issued under this option (Option 1) is portable and meets the requirements of subsection (a)(2).

(3) Accredited Certifying Entity. A certifying entity is any organization whose certification program is accredited by either the National Commission for Certifying Agencies (NCCA), or the American National Standards Institute (ANSI). ANSI accreditation shall be in accordance with the requirements of the ANSI, International Organization for Standardization (ISO), International Electrotechnical Commission (IEC) 17024:2003(E), Conformity Assessment-General Requirements for Bodies Operating Certification of Persons, which is hereby incorporated by reference.

(A) The accredited certifying entity shall have its accreditation reviewed by the nationally recognized accrediting agency at least every three years.

(4) Re-certification. Crane operators shall re-certify every five (5) years and shall be required to meet all of the qualifications set forth in subsection (b)(1). Operators with at least one-thousand (1,000) hours of documented experience operating the specific type of crane for which re-certification is sought as covered by this section during the immediately preceding certification period and who meet the physical examination, substance abuse, and written examination requirements set forth in subsections 1618.1(b)(1)(A)-(b)(1)(C) of this section shall not be required to take the "hands-on" examination specified in subsection (b)(1)(D) to re-certify.

(5) The accredited certifying entity shall have procedures for operators to re-apply and be re-tested in the event an operator applicant fails a test or is decertified.

(c) Option (2): Licensing by a government entity.

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED STATE STANDARD,
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(1) For purposes of this section, a government licensing department/office that issues operator licenses for operating equipment covered by this standard is considered a government accredited crane operator testing organization if the criteria in subsection (c)(2) of this section are met.

(2) Licensing criteria.

(A) The requirements for obtaining the license include passing a physical examination and a substance abuse test as prescribed in subsections (b)(1)(A) and (B), and an assessment, by written and practical tests, of the operator applicant regarding, at a minimum, the knowledge and skills listed in subsections (b)(1)(C) and (D) of this section.

(B) The testing meets industry recognized criteria for written testing materials, practical examinations, test administration, grading, facilities/equipment and personnel.

(C) The government authority that oversees the licensing department/office, has determined that the requirements in subsections (c)(2)(A) and (B) of this section have been met.

(D) The licensing department/office has testing procedures for re-licensing designed to ensure that the operator continues to meet the ~~technical knowledge and skills~~ requirements in subsection (c)(2)(A) (b)(1)(C) and (D) of this section.

(3) A license issued by a government accredited crane operator testing organization that meets the requirements of this option:

(A) meets the operator qualification requirements of this section for operation of equipment only within the jurisdiction of the government entity.

(B) is valid for the period of time stipulated by the licensing department/office, but no longer than 5 years.

(d) Pre-qualification/certification training period.

(e) Effective Dates and Phase-in.

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

EXCEPTIONS TO SECTION 1618.1:

(1) Operator qualification or certification under this section is not required for operation of derricks, side boom cranes or equipment with a maximum manufacturer-rated hoisting/lifting capacity of 2000 pounds or less.

(2) Operator qualification or certification under this section is not required for operation of articulating/knuckle-boom cranes having a boom length of less than 25 feet or a maximum rated load capacity of less than 15,000 pounds when used to deliver material to a construction site.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

Amend Section 1619.1 as follows:

§1619.1. Tower Cranes.

(a) This section contains supplemental requirements for tower cranes; all sections of this Article 15 apply to tower cranes unless specified otherwise.

(b) Erecting, climbing and dismantling.

The erection, climbing (up and down) and dismantling of a fixed tower crane shall comply with the requirements of Title 8, Section 341.1(b)(2) and General Industry Safety Orders, Section 4966. In addition the following supplemental requirements are applicable for all tower cranes.

(3) Foundations and structural supports. Tower crane foundations and structural supports (including both the portions of the structure used for support and the means of attachment) shall be designed by the manufacturer or a ~~certified agent~~ registered professional engineer.

(A) The controlling entity shall obtain from the entity that installed the tower crane foundations and structural supports a written statement or documentation that the crane foundations and structural supports were installed in accordance with the manufacturer's or RPE instructions, and shall ensure that the written statement or documentation is provided to the A/D director.

(B) The top of the support/foundation shall be accessible and free of debris, materials and standing water. No materials can be stored on the support unless approved by a qualified person. The foundation and fasteners shall remain accessible and visible for inspection at all times.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Attachment No. 3
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PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

TITLE 8: Division 1, Chapter 4, Subchapter 7. General Industry Safety Orders
Group 13. Cranes and Other Hoisting Equipment
Article 98. Operating Rules

Amend Section 4999 as follows:

§4999. Handling Loads.

(f) During Hoisting:

- (1) There shall be no sudden acceleration or deceleration of the moving load.
- (2) ~~Inadvertent contact with obstructions shall be prevented.~~ During lifting operations, the load, boom, or other parts of the equipment shall not contact any obstruction in a way which could cause falling material or damage to the boom.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

[Ed note: Amended to be consistent with 1616.1(o)]