

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

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Attachment No. 2

INITIAL STATEMENT OF REASONS

Title 8: Chapter 4, Subchapter 7, Article 12, Section 3427
of the General Industry Safety Orders (GISO).

Tree Climbing and AccessSUMMARY

The Division of Occupational Safety and Health (Division) initiated this rulemaking action to adopt amendments to GISO, Section 3427 that in part pertain to requirements and procedures for the safe climbing and access into trees for the purpose of tree maintenance or removal work. Because of immediate concerns for the health and safety of the public and tree care workers further explained below; the Division's rulemaking request was for an emergency adoption of amendments relating to safe access into trees.

The Administrative Procedures Act (APA), Article 5, Section 11346.1, permits the emergency adoption of regulations for good cause. The Occupational Safety and Health Standards Board (Board) has proceeded with the actions necessary for the emergency adoption of proposed amendments to Section 3427. However, APA, Article 5, Section 11346.1(e) provides that no regulation, or amendments adopted, as an emergency action shall remain in effect more than 120 days unless the agency has formally adopted the emergency regulation (through the regular or usual rulemaking process) in compliance with APA Sections 11346.2 to 11346.9. This rulemaking action is necessary to meet the provisions of APA Section 11346.1(e), and through the formal or non-emergency related rulemaking procedures, adopt amendments proposed for Section 3427.

In order to ensure a safe method is used to access trees when conventional methods of climbing or use of aerial devices is unsafe, both the Division and the Board believe it is necessary to permit use of cranes under certain circumstances for elevating employees to conduct tree removal operations. Provisions in the GISO, Article 98, Section 4995, prohibit employees from riding on a crane hook for access to any work location. However, Section 4990 specifically states that the requirements contained in Article 98 do not take precedence over vertical standards "of a specific nature." Section 3427 is a vertical industry standard for tree maintenance and removal work. The revisions proposed to Section 3427 in this rulemaking action would permit the limited use of cranes for the purpose of accessing trees, for the reasons stated below, provided the conditions prescribed in the proposed standard are met.

The epidemic bark beetle infestation and recent wild land fires that ravaged southern California counties have caused extensive damage to countless thousands of trees, necessitating their removal for purposes of public safety. These damaged trees are not stable. These trees and their branches and limbs are subject to falling, in some cases close to nearby residential and commercial areas, waterways or near high voltage power lines. The damaged condition of these trees presents an immediate hazard not only to the public in nearby areas, but to workers responsible for clearing and removing the trees. The removal of bark beetle and fire damaged trees is also essential before the full restoration of damaged telephone lines, cable and low and high voltage electrical lines can be achieved. Further, it is also necessary to remove these damaged trees as soon as possible to minimize the extent and amount of dry and dead wood that could serve as fuel in the upcoming fire season, as last year's Southern California fires covered over half a million acres, destroyed approximately 2,300 structures, caused billions of dollars in damage, and resulted in 16 fatalities.

The location and extent of damage to individual trees presents clear danger for tree workers to attempt to access them by conventional methods such as by climbing or use of aerial devices. Bark beetle infestations and fire-damaged trees have been widespread throughout California's forested lands and have resulted in large numbers of trees either dead or dying. Dead and dying trees not only raise the wild land fire risk, threatening homeowners by increasing fuel for a future fire, but make the trees hazardous to access for trimming or removal by conventional means such as climbing due to the fragile nature of the limbs and external bark of the tree.

Although the primary intent of this rulemaking action is to address the safe removal of bark beetle infested and fire-damaged trees, the scope of the standard would also apply to trees whose condition and/or location are unsafe via climbing or use of an aerial device due to other types of tree infestations, diseases, or the precarious location of the tree in relation to electrical lines and/or commercial or residential properties.

Consequently, amendments are proposed to Title 8, California Code of Regulations, GISO, Section 3427 that would permit a qualified tree worker to enter a tree suspended by the closed safety type hook of a crane when a tree cannot be safely accessed by conventional methods permitted in existing standards.

Federal OSHA's general industry standards contained in 29 Code of Federal Regulations (CFR), Part 1910, and construction-related standards contained in the 29 CFR, Part 1926, do not address the lifting of personnel attached by a suspended rope to the hook of a crane for the purpose of access to trees. However, federal OSHA industry-specific standards for marine terminals contained in 29 CFR 1917.45(j)(1)(ii) provide in summary, that an employee could be hoisted from the hoisting apparatus of a crane or derrick in a boatswain's¹ chair or other device rigged to prevent it from accidental disengagement from the hook or supporting member.

The practice of hoisting a tree worker is permitted in the national consensus standard, ANSI Z133.1-2000, entitled "Pruning, Repairing, Maintaining and Removing Trees, and Cutting Brush – Safety Requirements." However, this work practice is not addressed in California's standards in GISO, Article 12, "Tree Work, Maintenance and Removal."

¹ "Boatswain's chair" is a seat supported by slings attached to a suspended rope, designed to accommodate one employee in a sitting position.

Therefore, in order to permit this practice when it is unsafe to access trees using conventional methods (climbing or aerial device), the following amendments to Section 3427 are necessary.

SPECIFIC PURPOSE AND FACTUAL BASIS OF PROPOSED ACTION

Subsections 3427(a)(1) & (2)

Existing Section 3427 “Climbing and Access,” provides standards for safe working procedures for climbing and accessing trees, pruning and trimming, and tree removal activities. Subsection (a)(1) requires that prior to climbing the tree, the tree shall be visually inspected by a “qualified person” who shall determine and ensure a safe method of entry into the tree. An amendment is proposed that would require that “a qualified tree worker” does the inspection and determination of method for safe entry. The proposed amendment is necessary to ensure that a person who has the training, experience and demonstrated familiarity with the techniques and hazards specific to tree work performs the inspection.

The language from existing subsection 3427(a)(2) requires the location of all electrical conductors and equipment within the work area be identified in relation to the work being performed. It is proposed that this subsection be deleted and the requirement editorially moved to subsection (a)(1) for clarity purposes. The amendment is necessary to ensure that the location of all electrical conductors and equipment are identified during the inspection process when determining what the safest method and location of entry into the tree will be.

New Subsection 3427(a)(1)(A).

This proposed new subsection would require that when a tree cannot be safely accessed by climbing or the use of aerial devices, a qualified tree worker may be hoisted into position by using an approved tree worker’s saddle suspended from the closed hook of a crane. In addition to the line/rope suspending the worker in a tree saddle, the standard would also require the tree worker’s saddle to be secured to an independent safety line attached above the crane hook. This new subsection is necessary to limit the use of a crane to hoist a qualified tree worker only when access by climbing or aerial device is not safe. This new subsection is also necessary to ensure that while the qualified tree worker is suspended from the crane hook, appropriate equipment such as another line (independent of the line used to suspend the worker and tree saddle to the crane hook) is used so that the worker has fall protection while access and positioning from the crane into the tree is achieved.

New Subsection 3247(a)(1)(A)1.

This proposed new subsection would require all climbing equipment, lines, and rigging to have a minimum breaking strength of at least 5000 pounds. This amendment is consistent with the provisions for fall protection systems contained in Section 1670 of the Construction Safety Orders. This new subsection is necessary to ensure that all fall protection equipment meets established design and strength requirements.

New Subsection 3427(a)(1)(A)2.

The provisions of this new subsection would require that the crane boom and load line be moved in a slow, controlled, cautious manner with no sudden movements when the qualified tree worker is attached to the crane. This new subsection is necessary to mitigate potential hazards associated with swinging the worker that may result from sudden or unexpected movements of the crane.

New Subsection 3427(a)(1)(A)3.

GISO Section 5004, “Crane or Derrick Suspended Personnel Platforms,” applies to the design, construction and maintenance of personnel platforms, and the hoisting of personnel platforms on load lines of cranes and derricks. A personnel platform must be equipped with a guardrail system and a number of other requirements not applicable or practicable for the design of an approved tree worker saddle. The provisions of Section 5004 then would not be applicable when hoisting a worker suspended in an approved tree worker saddle. However, Section 5004 contains provisions that address similar safe crane operations when hoisting personnel. Therefore, the proposed new subsection references the provisions of Sections 5004(d)(2), (4), (5), (6), and 5004(e) and is necessary to specify safe crane operations for hoisting a qualified tree worker suspended in a tree worker saddle.

New Subsection 3427(a)(1)(A)4.

This proposed new subsection would specify that the qualified tree worker being hoisted shall be in continuous communication with the crane operator, or signals shall be relayed by a qualified signal person as provided in Section 5001. Maintaining effective communication with the crane operator is essential for immediate action necessary by the crane operator for the safety of the tree worker being hoisted by a crane. This new subsection is necessary to ensure prompt communication with the crane operator at all times.

New Subsection 3427(a)(1)(A)5.

New subsection 3427(a)(1)(A)5 would require that the crane operator remain at the controls when the qualified tree worker is attached to the crane. This proposed new subsection is necessary to ensure that the crane operator could take immediate action to address emergencies and take actions necessary for the safe positioning of the tree worker.

New Subsection 3427(a)(1)(A)6.

The proposed new subsection would require the qualified tree worker to be detached from the crane while the load is hoisted. Crane accidents are most likely to occur when the crane is lifting a load. Therefore, the proposed new subsection is necessary to prohibit the tree worker from being attached to the crane when the load is being hoisted.

New Subsection 3427(a)(1)(A)7.

This proposed new subsection would require the employer to ensure that the crane operator and qualified tree worker determine the weight of the load being lifted to prevent the crane from being overloaded. The proposed new subsection is necessary to mitigate the possibility of overloading the crane as the weight of the tree portion or limb being removed and hoisted would need to be calculated and a determination made that the load is within the crane's lift capacity (load charts) provided by the crane manufacturer.

New Subsection 3427(a)(1)(A)8.

Under certain conditions, GISO Section 5004 permits the hoisting of personnel platforms on the load line of cranes. Section 5004(k)(5) requires that the hoisting of employees be discontinued in dangerous weather conditions or other impending danger. Proposed new subsection 3427(a)(1)(A)8 adopts similar language and is necessary to prohibit work when inclement weather or other dangerous conditions present a hazard to employees.

Notes Nos. 1 and 2.

An informational note is proposed for this section advising that other crane requirements are contained in GISO Group 13, Cranes and Other Hoisting Equipment. A second informational note is proposed advising that Article 38 of the High Voltage Electrical Safety Orders addresses line clearance tree trimming operations. These notes are necessary to remind the reader of other standards related to crane operations, and tree trimming operations in the vicinity of exposed energized conductors and equipment.

DOCUMENTS RELIED UPON

- ANSI Z133.1 - 2000 for Arboricultural Operations - "Pruning, Repairing, Maintaining and Removing Trees, and Cutting Brush – Safety Requirements."
- Memorandum dated February 18, 2004, from Len Welsh, Acting Chief, Division of Occupational Safety and Health, to Steven Rank, Chairman, Occupational Safety and Health Standards Board, regarding Emergency Safety Order to Address Access to Trees.

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

The proposed standard would not require specific technologies or equipment because it does not mandate, but rather provides relief and permits an alternative method (use of a crane) to access trees when conventional methods are unsafe.

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. Board staff is not aware of any state agencies with employees involved in the removal of unsafe trees because the condition of the trees have been compromised by conditions such as severe insect infestation and/or fire damage. Should any state agency be identified that would implement provisions of the proposed standard, the standard would have no fiscal effect for any agency because it does not mandate, but rather provides relief and permits an alternative method (use of a crane) to access trees when conventional methods are unsafe.

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 affecting businesses, including the ability of California businesses to compete with businesses in other states. Also, see comments above under the heading "Specific Technology or Equipment."

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 amendments 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 state, local and private employers will be required to comply with the prescribed standards.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendments may affect small businesses. However, no economic impact is anticipated.

ASSESSMENT

The adoption of the proposed amendments to the 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.