

**THE UOSH
SAFETY LINE
AUGUST 2010**

Contact Us

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Work related fatali-
ties, serious injuries
and imminent danger
situations are to be
reported to UOSH
within 8 hours of the
injury. Report seven
days a week by calling
801-530-6901.

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OSHA ISSUES NEW CRANES AND DERRICKS STANDARDS

The Occupational Safety and Health Administration (OSHA) has issued new regulations addressing the safety of cranes and derricks in the construction industry. The rule updates and specifies industry work practices regarding the use of cranes and derricks, and also "addresses advances in the designs of cranes and derricks, related hazards, and the qualifications of employees needed to operate them safely". According to OSHA, approximately 267,000 construction, crane rental, and crane certification establishments employing about 4.8 million workers will be affected by the rule.

The rule, which has been in the works for a number of years, mandates that employers in the construction industry take the following steps:

- Assess whether the ground is sufficient to support the anticipated weight of hoisting equipment and associated loads.
- Assess hazards within the work zone that would affect the safe operation of hoisting equipment, such as those of power lines and objects or personnel that would be within the work zone or swing radius of the hoisting equipment.
- Ensure that the equipment is in safe operating condition via required inspections and mandate that employees in the work zone are trained to recognize hazards associated with the use of the equipment and any related duties that they are assigned to perform.

As OSHA explains, the rule aims to prevent electrocution, crushed-by/struck-by hazards during assembly/disassembly, collapse and overturn, along with other types of injuries related to crane and derrick operations. The significant requirements in this new rule include: a pre-erection inspection of tower crane parts, use of synthetic slings in accordance with the manufacturer's instructions during assembly/disassembly work, assessment of ground conditions, qualification or certification of crane operators, and procedures for working in the vicinity of power lines. The rule also provides a functional description and a list of examples of equipment covered by the rule. Other changes of note include the following:

- Employers must comply with local and state operator licensing requirements which meet the minimum criteria specified in 29CFR 1926.1427.
- Employers must pay for certification or qualification of their currently uncertified or unqualified operators.
- Written certification tests may be administered in any language understood by the operator candidate.
- When employers with employees qualified for power transmission and distribution are working in accordance with the power transmission and distribution standard (29 CFR 1910.269), that employer will be also considered in compliance with this final rule's requirements for working near power lines.
- Employers must use a qualified rigger for rigging operations during assembly/disassembly.
- Employers must perform a pre-erection inspection of tower cranes.

This rule took effect August 9, 2010. Certain provisions have delayed effective dates ranging from 1 to 4 years. The rule estimates that the total annual cost of implementing these new requirements will be \$154.1 million.

To help employers understand these new requirements, OSHA will also be developing a compliance directive in a series of guidance and outreach documents that will be available before the standard goes into effect. Other clarifications made during the meeting include the following:

- The new regulations apply to the construction industry only. However, if an employer in the general industry performs construction-related work, it will be covered by the new regulations.
- Crane operators have up to four years to obtain the necessary certification, unless the employer operates in a city or state with local licensing requirements.
- This new rule will affect most types of cranes and derricks engaged in construction activity, as outlined in section 29 CFR 1926.1400. Those types of equipment not specified in this section are not covered by the rule.
- With respect to general contractors that do not own cranes, the OSHA staff explained that the new rule may require general contractors to share information and receive information regarding ground conditions.
- Employers that have employees who are qualified in subpart V work may comply with 29 CFR 1910.269 of the general industry standard.
- All utility pole work performed with digger derricks are excluded.
- Employers must comply with manufacturer's recommendations for the use of synthetic slings.
- Forklifts are covered by the final rule when they are configured like a crane.
- OSHA provided clarification in the preamble to address when knuckleboom cranes are covered by the standard during material delivery.

OSHA FACT SHEET

Cranes and Derricks in Construction Final Rule

The U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) released a historic new standard, addressing the use of cranes and derricks in construction and replacing a decades old standard. The significant number of fatalities associated with the use of cranes and derricks in construction and the considerable technological advances in equipment since the publication of the old rule, issued in 1971, led the Labor Department to undertake this rulemaking. In 1998, OSHA's expert Advisory Committee on Construction Safety and Health (ACCSH) established a workgroup to develop recommended changes to the current standard for cranes and derricks. In December 1999, ACCSH recommended the Agency use negotiated rulemaking to develop the rule. The Cranes and Derricks Negotiated Rulemaking Committee (C-DAC) was convened in July 2003 and reached consensus on its draft document in July 2004. In 2006, ACCSH recommended that OSHA use the C-DAC consensus document as a basis for OSHA's proposed rule, which was published in 2008. Public hearings were held in March 2009, and the public comment period on those proceedings closed in June 2009.

- The rule becomes effective 90 days after August 9, 2010, the date the final rule was published in the *Federal Register*. Certain provisions have delayed effective dates ranging from one to four years.
- The final rule was published on August 9, 2010 by the Federal Register, and can be found at http://www.osha.gov/FedReg_osea_pdf/FED20100809.pdf. A copy of the regulatory text is available at: <http://www.osha.gov/doc/cranesreg.pdf>
- This new standard will comprehensively address key hazards related to cranes and derricks on construction worksites, including the four main causes of worker death and injury: electrocution, crushed by parts of the equipment, struck-by the equipment/load, and falls.
- Significant requirements in this new rule include: a pre-erection inspection of tower crane parts, use of synthetic slings in accordance with the manufacturer's instructions during assembly/disassembly work, assessment of ground conditions, qualification or certification of crane operators, and procedures for working in the vicinity of power lines.
- This final standard is expected to prevent 22 fatalities and 175 non-fatal injuries each year.
- Several provisions have been modified from the proposed rule. For example:
- Employers must comply with local and state operator licensing requirements which meet the minimum criteria specified in 29 CFR 1926.1427.
- Employers must pay for certification or qualification of their currently uncertified or unqualified operators.
- Written certification tests may be administered in any language understood by the operator candidate.
- When employers with employees qualified for power transmission and distribution are working in accordance with the power transmission and distribution standard (29 CFR 1910.269), that employer will also be considered in compliance with this final rule's requirements for working near power lines.
- Employers must use a qualified rigger for rigging operations during assembly/disassembly.
- Employers must perform a pre-erection inspection of tower cranes.
- This final rule requires operators of most types of cranes to be qualified or certified under one of the options set forth in § 1926.1427. Employers have up to four years to ensure that their operators are qualified or certified, unless they are operating in a state or city that has operator requirements.
- If a city or state has its own licensing or certification program, OSHA mandates compliance with that city or state's requirements only if they meet the minimum criteria set forth in this rule at § 1926.1427.
- The certification requirements in the final rule are designed to work in conjunction with state and local laws.
- This final rule clarifies that employers must pay for all training required by the final rule and for certification of equipment operators employed as of the effective date of the rule.
- State Plans must issue job safety and health standards that are "at least as effective as" comparable federal standards within six months of federal issuance. State Plans also have the option to promulgate more stringent standards or standards covering hazards not addressed by federal standards.
OSHA will have additional compliance assistance material available within the next month.



Set the ladder at the proper angle by creating a right triangle with your body

Make sure the feet of the ladder can't slip backward

Make sure the top of the ladder is resting on a flat surface and doesn't slide or wobble when you put weight against it.

When climbing the ladder, grab onto the rungs of the ladder using a hand over hand method never letting go of one rung before grabbing the next.

Ladder Safety

Falls from portable ladders (step, straight, combination and extension) are one of the leading causes of occupational fatalities and injuries. Below are some tips to help prevent ladder accidents:

- Read and follow all labels/markings on the ladder.
- Avoid electrical hazards! Look for overhead power lines before handling a ladder. Avoid using a metal ladder near power lines or exposed energized electrical equipment.
- Always inspect the ladder prior to using it. If the ladder is damaged, it must be removed from service and tagged until repaired or discarded.
- Do not use a self-supporting ladder (e.g., step ladder) as a single ladder or in a partially closed position.
- Do not use the top step/rung of a ladder as a step/rung unless it was designed for that purpose.
- Always maintain a 3-point (two hands and a foot, or two feet and a hand) contact on the ladder when climbing. Keep your body near the middle of the step and always face the ladder while climbing.
- Only use ladders and appropriate accessories (ladder levelers, jacks, or hooks) for their designed purposes.
- Ladders must be free of any slippery material on the rungs, steps, or feet.
- Use a ladder only on a stable and level surface, unless it has been secured (top or bottom) to prevent displacement.
- Do not place a ladder on boxes, barrels, or other unstable bases to obtain additional height.
- Do not move or shift a ladder while a person or equipment is on the ladder.
- An extension or straight ladder used to access an elevated surface must extend at least 3 feet above the point of support (see diagram). Do not stand on the three top rungs of a straight, single or extension ladder.
- The proper angle for setting up a ladder is to place its base a quarter of the working length of the ladder from the wall or other vertical surface (see diagram).
- A ladder placed in any location where it can be displaced by other work activities must be secured to prevent displacement, or a barricade must be erected to keep traffic away from the ladder.
- Be sure that all locks on an extension ladder are properly engaged.
- Do not exceed the maximum load rating of a ladder. Be aware of the ladder's load rating and of the weight it is supporting, including the weight of any tools or equipment.

Safety Compliance Corner

I have employees who don't speak English very well (it's their second language). Do I need to provide their training materials in Spanish? Employers must instruct their employees using both a language and vocabulary that the employees understand. If employees are not literate, telling them to read training materials will not satisfy the employers' training obligation. If employers need to communicate work instructions or information to employees at a certain vocabulary level or in a language other than English, they will also need to provide safety and health training to employees in the same manner.

Working Safely with Chain Saws



The chain saw is one of the most efficient and productive portable power tools used in the industry. It can also be one of the most dangerous. If you

learn to operate it properly and maintain the saw in good working condition, you can avoid injury as well as be more productive. Before Starting the Saw:

- Check controls, chain tension, and all bolts and handles to ensure they are functioning properly and adjusted according to the manufacturer's instructions.
- Fuel the saw at least ten feet from sources of ignition.
- Check the fuel container for the following requirements:
 - Must be metal or plastic.
 - Must not exceed a five gallon capacity.
 - Must be approved by the Underwriters Laboratory (UL), Factory Mutual (FM), the Department of Transportation (DOT), or other nationally recognized testing laboratory.

While Running the Saw

- Keep hands on the handles, and maintain

secure footing while operating the chain saw.

- Clear the area of obstacles that might interfere with cutting the tree or using the retreat path.
- Do not cut directly overhead.
- Shut off or release throttle prior to retreating.
- Shut off or engage the chain brake whenever the saw is carried more than 50 feet, or across hazardous terrain.
- Be prepared for kickback; use saws that reduce kickback danger (chain brakes, low kickback chains, guide bars, etc.).

Personal Protective Equipment Requirements

Personal protective equipment (PPE), for the head, ears, eyes, face, hands, and legs are designed to prevent or lessen the severity of injuries to loggers and other workers using chain saws. PPE must be inspected prior to use on each work shift to ensure it is in serviceable condition.

- The following PPE must be used when hazards make it necessary:
 - Head Protection
 - Hearing Protection
 - Eye/Face Protection
 - Leg Protection
 - Foot Protection
 - Hand Protection

Training

Employers involved in tree removal/logging are required to assure that their employees are able to safely perform their assigned tasks. When loggers are trained to work safely they should be able to anticipate and avoid injury from the job related hazards they may encounter.

Training requirements include:

- Specific work procedures, practices and requirements of the work site, including the recognition, prevention, and control of general safety and health hazards.
- Requirements of the OSHA Logging standard, Bloodborne Pathogens standard, First Aid, and CPR training.
- How to safely perform assigned work tasks, including the specific hazards associated with each task and the measures and work practices which will be used to control those hazards.
- How to safely use, operate, and maintain tools, machines and vehicles which the employee will be required to utilize in completing the assigned requirements.

Back Injury Prevention

Did you know back injuries are one of the most frequent, severe type of injuries. It is estimated that back pain may affect as much as 50 to 70 percent of the general population in the United States. Your back is a sophisticated piece of equipment made up of numerous muscles, bones, nerves, and supporting tissues.

You use your back every day, probably in ways you don't even notice. Just like any piece of equipment, your back requires proper maintenance and care to keep it working. An injured back can affect your ability to move other parts of your body causing pain, time away from work, and often requiring physical therapy or even surgery. Back pain is often the result of incorrect lifting methods and posture. Repetitive lifting, bending, and twisting motions of the torso affect both the degree of severity and frequency of back pain.

Think ahead—Plan each lift

Whether you're at work or at home, you know you're going to have to lift items from time to time. Remember it isn't just heavy loads that cause injuries. Pay careful attention to how you lift, every time you lift. Using safe lifting techniques can help you prevent a serious injury.

What's a safe weight to lift?



There is no set weight that is safe for everyone to lift in all situations. But, according to a lifting equation developed by the National Institute for Occupational Safety and Health (NIOSH), a recommended weight limit will never exceed 51 pounds. Several factors can reduce this weight in order for the lift to remain safe. In other words, if you need to extend your reach, lift overhead, twist, move loads repeatedly, or are unable to get a good grip on a load, you increase your risk for injury; and the load should be lighter, or you should get help to lift it. Use hoists, dollies, carts, and other mechanical lifting aids when possible. If you must lift manually, follow safe lifting techniques.

Safe lifting techniques

1. Approach lifting tasks slowly - using leg and arm muscles to lift, not your back
2. Size up the load before you lift. If you don't know the load's weight, test it by moving one of the corners. Split up large loads into smaller units. If the load is heavy, an awkward shape, or if you can't get a good grip; use a mechanical lifting device, or get help from a co-worker. When in doubt, don't lift alone!
3. Plan ahead. Make sure you have a clear path to carry the load, and a place to set it down, before you begin the lift.
4. Place your feet close to the object and center yourself in front of the load.
5. Bend your knees to let your stronger leg muscles lift the load.
6. Get a good grip.
7. Lift straight up while keeping your back straight, squatting keeping the load close to your body. Let your legs do the work. If you are lifting with a partner, use a signal so you both lift at the same time.
8. Do not twist or turn your body once you have made the lift, turn with your feet. If you start to lose your grip, set the load down.
9. Setting the load down is just as important as lifting it. Lower the load into place by bending your knees and following the same technique putting the object down. If you are working with a partner, you should both set down the load at the same time.
10. Use proper equipment (ladders, lifting equipment, etc.) to reach or place objects above your head.

As employers, we can help reduce back injuries by training employees to utilize proper lifting - techniques that place minimum stress on the lower back. Make material handling - equipment available such as carts, dollies or hand trucks. Redesign storage spaces so that shelving and reaching areas are accessible and positioned between knee and shoulder height. Encourage physical conditioning or stretching programs to reduce the risk of muscle strain. Everyone is at risk for experiencing back pain at some point in their life, always be on the lookout for situations that could potentially cause a back injury. Be kind to your back and don't take unnecessary chances.