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## Get Ready for New Crane Rules



# Crane Industry Implements New Rules

No burden as long as you're already prepared



**A**fter a long wait by the industry, OSHA finally made the new 29 CFR Part 1926, Cranes and Derricks in Construction Regulation official.

While the industry has actively promoted the acceptance of new regulations for more than 10 years, it languished in government for the last six, and it has only been in the last couple of years, prompted by several high-profile accidents, that anyone outside the industry gave it any attention.

After such a long process to write the regulation, the effective date of Nov. 8, 2010 can't come quickly enough for some, while others complain there isn't enough time to become compliant with it. Those who use cranes are now asking how they are impacted by the regulation, even as training experts, industry associations, and others help individuals digest the document.

The experts that *Crane Hot Line* talked with all agreed that implementation will only be a burden for employers who have swept

worker training and equipment maintenance under the rug for the last 10 years.

"It will have minimal financial impact to those who are doing things correctly," said Joe Collins, an industry consultant with Joe Collins Crane and a member of the original Cranes and Derricks Advisory Committee (C-DAC), which drafted the proposed document.

Likewise, Mike Riggs of I&I Sling said, "If employers are training their people correctly now, there will be no cost. If they've ignored training, then there will be a cost based on how large they are."

Many in the industry see the new regulation as a solid document, but far from the last word on the issues it addresses. "I think this new code does a great job in helping address some of the hot buttons related to inspections and qualifications for workers, but we will still lose a lot of loads below the hook. I

hope there's some upgrading to it," said Mike Parnell of Industrial Training International.

Debbie Dickinson of Crane Institute Certification says the document is a great starting place. "The heritage of the crane and rigging industry is to self-regulate to be as safe, efficient, and productive as possible. The new OSHA rule should be viewed as the foundation, not the ultimate of all we can do to work safely."

Among the key areas of the regulation is language dealing with the people on the job; proper set up and take down of cranes; other operational issues; and the use of related equipment, such as rigging gear and safety devices. *Crane Hot Line* asked industry experts to analyze the impact of the rule in these four areas. Here is what they believe you need to know to get prepared.

## ► PEOPLE

### Operator certification (Section 1926.1427)



#### Debbie Dickinson

Debbie Dickinson is the Executive Director of Crane Institute Certification (CIC), Sanford, Fla. CIC certifies crane operators, inspectors, riggers and signalpersons; Certifications are NCCA accredited, OSHA recognized.

The effective date for the majority of the regulation is Nov. 8, 2010, but construction industry crane operators have four years—until Nov. 8, 2014—to earn and maintain an accredited certification. However, many states, municipalities, unions, and employers already require

accredited operator certification. Employability will decrease for operators the longer they wait to become certified.

The regulation allows an individual to receive certification from the U.S. military, a licensed government entity, such as a state or city, or audited employer-provided program. None of these, however, are portable beyond that employer or jurisdiction.

A qualified, audited employer program may have some appeal to employers, however, the requirements for an employer-based program nearly mirror an accredited third-party certification. For example, an employer's qualification must be developed by an accredited testing organization or audited by an accredited crane operator testing organization. The employer would still have to test operators, and auditors must be able to verify that an employer's

tests meet “nationally recognized test development criteria and are valid and reliable in assessing the operator’s knowledge and skills.”

The hard cost and labor of employer qualification may exceed the cost of third-party accredited certification. In addition, an employer program is not portable. If an operator goes to another job, the credentials remain with the employer and may not follow the operator in an employer-based program. Likewise, a newly hired operator would have to be documented by the new employer to the same extent. Accredited third-party certifications are portable for operators going from one employer to another.

Employers must pay for crane operator certifications, at no cost to the operator. In addition, employers must provide training and a trainer must monitor operators-in-training. With limited exceptions, for short 15-minute breaks with minimal and defined operations, if any, “the operator’s trainer and the operator-in-training must be in direct line of sight of each other...they must communicate verbally or by hand signals.” Employee trainers must be certified operators.

Today, there are three, equally accredited certification organizations to provide third-party crane operator certification. Organizations that meet the full requirements of final OSHA rule include, in alphabetical order: Crane Institute Certification (CIC); the National Center for Construction Education & Research (NCCER); National Commission for the Certification of Crane Operators (NCCCO).

The use of calculators has been a debate specifically related to certification testing, and the new regulation now permits them. Operators may be tested for certification verbally or “in any language the candidate understands.” Operators do *not* have to have practical exams on every crane they operate. For example, operators passing tests on a 100-ton telescoping boom crane are deemed qualified and certified on lesser-capacity cranes of this same type.

### Signalperson (Section 1926.1428)



#### Mike Parnell

Mike Parnell is president of Industrial Training International, Woodland, Wash., which specializes in crane and rigging training and consulting. He is a board member of the Association of Crane and Rigging Professionals. Active in industry standards committees,

he is vice chairman of ASME B30 main committee and a voting member of several B30 subcommittees.

This regulation now requires a level of knowledge that’s unprecedented in a formal way. The signalperson is required to have knowledge of crane operations and understand how a signal affects the crane’s capability and capacity. Signalpersons used to simply be a separate set of eyes on the ground, helping the operator get the load from Point A to Point B. Now the person in this position is more accountable to help the whole crew and to ensure the load is taken along a path that minimizes risk to others and lowers the risk to the crane.

For example, a signalperson needs to know that booming down typically loses capacity, booming up gains capacity, boom extend loses capacity, and boom retract gains capacity. This is a level of responsibility that the signalperson has not had before.

In addition, signalpersons must prove they are capable of signaling by written or oral testing and by performance. It wasn’t that long ago for the youngest, least experienced person to be assigned the task of signaling because the seasoned people were involved in

rigging, blocking, and load-handling activities.

Today, at least two groups offer qualification using the certification method, and more are on the horizon. But be careful with the word “certified.” While a certified signalperson would meet OSHA’s requirements, OSHA only calls for a “qualified” signalperson. That can be achieved in a variety of ways: Employers can offer their own documented program or candidates can be tested by a third-party evaluator, which doesn’t necessarily have to be a certifying group. The advantage of using a certifying group, however, is that the signalperson’s qualifications are portable from job to job.

One other key point: In the section on signaling, information on hand signals and radio communication has expanded, and now calls for a formal three-step process. Those steps are: 1) function and direction, 2) distance or speed, and 3) function and stop. These steps are also identified in ANSI B30.5 in the same vernacular.

However, the new regulation was not so detailed with its wording on what defines a “qualified” rigger. The rule calls for a qualified rigger, but it doesn’t go much further than that.

### Rigger (Section 1926.251, 753, 1401, 1404, 1425)

While it’s a start that OSHA has identified the need for qualified riggers, it is unfortunate that the regulation doesn’t spell out what a qualified rigger needs to know. In any given year I am reviewing a half dozen cases involving rigging accidents. I’m just one of many people who regularly deal with those cases in court. There are still hundreds of rigging accidents that don’t get OSHA’s attention. In the construction crane arena, the assembly/disassembly director must

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have a qualified rigger performing the rigging (see 1926.1404). Also, in the general rigging of materials on the construction site, OSHA requires the materials to be rigged by a qualified rigger (see 1926.1425).

The steel erector's code, Subpart R, also names the rigger but goes a step further. In 1926.753.(c)(2), for example, "the qualified rigger shall inspect in accordance with 1926.251," and it talks more about the actions of the rigger throughout that entire section and how his efforts contribute to safe load handling.

I believe the biggest issue for employers will be determining which employees meet the definition of a qualified rigger. Nationally accredited certification programs have Qualified Rigger (CIC) and Rigger Level 2 (NCCCO) testing available that appear to meet the intent of the OSHA requirement. Both groups also offer a "basic" certification, however, the candidate is not required to prove ability to solve problems, make any calculations of weights or sling tensions, nor make rigging decisions independent of a qualified rigger.

### Personnel designations (Section 1926.1401, 1419, 1421)



#### Ryan Warren

Ryan Warren is director of construction law at Hensley, Kim & Holzer LLC, a Denver-based law firm. He represents construction companies, developers, owners, and crane rental companies throughout the midwestern and western United States.

Even though we've been hearing so much about OSHA's new regulation, ANSI B30 standards will continue to provide more specific guidance than the regulations do in numerous areas. In fact, portions of the 2004 ANSI B30 standard are specifically incorporated into the new regulation by reference.

The new OSHA regulation discusses "lift director," but not in much detail, even though it defines other personnel designations in the Definitions section. Though it is not referenced specifically in the regulation, the 2007 ANSI B30.5 definition of "lift director" should probably be studied and known.

**Competent person:** A "competent person," according to the new regulation, is someone who has the ability, through training or experience, to identify a problem at the jobsite and has the authority to correct that problem. The important thing for someone in charge of crane operations to remember is that one must be able to document that the chosen competent person actually did have the training or experience for their particular position. One question that arises: What level of ability are we talking about? Education and training must be matched with proper experience. This is one of those issues that will require consideration and some analysis by the person assigning the "competent person" to various tasks at the jobsite.

**Qualified person:** OSHA essentially defines a "qualified person" as one who has "demonstrated" they can do the job. A careful reading of the definition, however, reveals that it does not state that the qualified person must actually have demonstrated their proficiency through any verbal, written, or practical test. They must simply show through a "degree, certificate, or professional standing" or through their "knowledge, training, and experience" that they are "qualified." Does that mean that to be a "qualified rigger," all I need to do is show that I had the title "rigger" at my last job? In other words, that I have the "professional standing" of a rigger, irrespective of whether my last

employer had the ability to determine if I was a properly trained rigger or not? Reading the definitions, it sure sounds like it to me.

**Signalperson and lift director:** Importantly, as discussed above, there are personnel designations used in OSHA's new regulation that are not in the Definitions section. These include signalperson and lift director. Signalperson is a fairly obvious designation and there are specific requirements within the new regulation regarding this position, including the requirement that all signalpersons, "demonstrate that he/she meets the requirements...through an oral or written test, and through a practical test." Clearly OSHA felt it necessary to go beyond the requirements for riggers when considering the signalperson.

A word search reveals "lift director" is used five times in the reg. The first three times it is followed by the phrase "where there is one." For example, under "hand signals," the regulations states: "When using non-standard hand signals, the signalperson, operator, and lift director (where there is one) must contact each other prior to the operation and agree on the non-standard hand signals that will be used."

Interestingly, in the final two usages "of lift director," under the "Multiple-crane/derrick lifts—supplemental requirements" section, there is no follow-up of the words "where there is one," indicating OSHA is requiring a lift director where there are multiple cranes used on a lift.

The preamble to the regulation is OSHA's discussion of their intent behind discussing or not discussing certain areas within the regulations. The preamble is long, but extremely valuable to review in conjunction with the regulations. Only by carefully reviewing the preamble to the regulation can one determine the definition of lift director with any certainty. OSHA states that it "has decided to replace the term 'lift supervisor' with the term 'lift director' in 1926.1419(c)(2), 1926.1421(a), and 1926.1421(c)." This is not a direct definition, but OSHA is clear that lift director means the supervisor of the lift.

Since lift director is used without the words "where there is one," only in connection with multiple-crane lifts, apparently OSHA is only requiring lift directors in those specific instances.

OSHA's new crane regulation, while clarifying the qualifications a signalperson must have, still leaves significant discretion to those who own, supervise, and operate cranes every day. These people will necessarily have to remain vigilant, know the regulation, and carefully interpret the requirements of each jobsite.

### ► SETUP & TAKE DOWN Assembly and disassembly (Section 1926.1404)



#### Robert Weiss

Robert Weiss, Cranes Inc., was one of 23 industry professionals who sat on the Crane and Derrick Negotiated Rulemaking Committee (C-DAC). He represented the Allied Building Metal Industries, a trade association of New York City's steel erection contractors.

Weiss is also a certified mobile crane inspector and vice president of Cranes Inc., a crane rental company in New York City.

According to a recent study conducted by the *Journal of Construction Engineering and Management*, entitled, "Crane-Related Fatalities in the Construction Industry," 21 percent of all fatalities involving cranes occur during the assembly/disassembly process. Behind powerline contact, crane assembly/disassembly problems are the single