# **Top 10 OSHA Citations Under the New Crane Standard – And How to Avoid Them**

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## The New Crane Rule

A new OSHA crane standard, known to most as Subpart CC under 1926, became effective November 8, 2010. The new rules replaced and greatly expanded the original rules. Many new sections were included to cover original omissions and technology that was not in play when the standards were first published. The new rules contain some well-publicized sections such as the requirement of crane operator certification. Many additional new rules, or expansions of original rules, may have escaped notice by some.

# The Citations Issued

Two snapshots of OSHA inspection records were taken to establish the priority list that is presented in this program. The first view covered the initial 12 months after the rule was first effective, and the second view covered the second 12-month period. This was done to allow for analysis of the evolution of citation activity over time.

There were only minimal differences between the two years. There was some shuffling of the rankings between the years, and most of the top ten citations appeared on the list for both years.

The top 10 list of OSHA citations under the New Crane Standard fell into four categories. These were:

- 1. Crane inspections
- 2. Qualifications for people
- 3. Conditions affecting operations
- 4. Work practices

Equipment conditions appeared in the top ten in only one of the first two years.

To provide a complete listing of the leading citations for both years, the list is expanded to 12 items. This includes all of the top ten citations for both years. Most of the violations fell into

the same categories. Lower on the list, there was a bit of a shift from the old equipment-focused inspection to more of a qualification and documentation focus. These items are ranked in priority order, beginning with the most frequently cited for both years:

Rank	Citation Su	bject Applicable Y	ear
1)	1926.1412 (f) (1)	Annual Inspections	both years
2)	1926.1412 (e) (1)	Monthly Inspections	both years
3)	1926.1412 (d) (1)	Shift Inspections	both years
4)	1926.1428 (a) (1)	Signal Person Qualification	both years
5)	1926.1402 (b)	Ground Conditions	both years
6)	1926.1424 (a) (2) (	(ii) Swing Radius	both years
7)	1926.1417 (a) (2)	Unattended Equipment	year 2 only
8)	1926.1408 (e)	Power Line Clearance	both years
9)	1926.1425 (c) (3)	<b>Rigger</b> Qualifications	both years
10)	1926.1430 (c)	Operator Training	year 2 only
11)	1926.1428 (a) (3)	Signal Person Qualifications	year 1 only
12)	1926.1425 (c) (2)	Rigging – hook latches	year 1 only

 Table 1. 12 Most Frequent Citations under Subpart CC, the New Crane

 Standard (OSHA)

Federal and State Plan OSHA citations issued under the new crane standard (OSHA Subpart CC) were checked for two 12-month periods. The first period coved the first year after the effective date of the new rule on 11/8/2010. The second period covered the following 12-month period.

Eight cited sections appeared on the top 10 list for both the first and the second years. Two cited sections dropped off the top 10 list after the first year, being eclipsed by two new items. One dropped item, 1926.1428 (a) (3), Signal Person Qualifications, fell to 11<sup>th</sup> place overall. Note that items 4 and item 11 are almost the same issue. Taken together, Signal Person Qualifications ranks near the top of the list for both years. The second item, 1926.1425 (c) (2), Rigging/hook latches, fell to 12<sup>th</sup> place overall. Hook latches, along with swing radius protection, have been perennial citation leaders in the decades prior to the new rule.

#### Crane Operator Certification

It is important to note that one major part of the new rule, Crane Operator Certification, is not effective until November 10, 2014. Fourteen states already enforce Operator Certification. As this section is not yet effective in Federal Plan States, tabulation of data for citations under this section were not included in this study.

Ground conditions, or, specifically, the responsibilities of the controlling entities, is a new issue under Subpart CC. This focuses attention on who is responsible for preparation of a site for a crane, and informing crane operators of known underground hazards.

Crane inspections have always been an important safety and compliance issue. Under the new rules, documentation of the inspections, and the absence of obvious equipment deficiencies, is a priority.

## Rigging

Subpart CC contains nothing about rigging equipment, and very little on rigging practices. Rigging equipment is covered under other rules. The qualifications of the personnel performing the rigging are loosely specified under the new standards. Riggers must be "qualified" to perform their tasks.

There is confusion for some between "certified" and "qualified" for riggers and signalers. Accredited certifications are available for both from entities such as the National Commission for Certification of Crane Operators (NCCCO). OSHA does not require certified riggers and signalers. However, matching the requirements for certification with the loose OSHA definition for riggers, and specific requirements for signalers, there is an assumption that a certified person would also be qualified.

Crane operator training will probably diminish on the list once operator certification becomes required nationally in November 2014. There is, however, an ongoing issue of operator qualification. Currently, certifications are machine class specific, such as "telescopic boom rotating cab." Some believe that a broad class certification is insufficient from both a compliance and a safety standpoint. One argument is that being certified on one piece of equipment in a class would not automatically qualify that operator on all sizes, all manufacturers and all models within that class.

Additional guidance on operator qualification is likely forthcoming. In the interim, some employers are requiring class certification, followed by the employer's evaluation of an operator candidate on specific machines. Both written and practical testing is in use.

#### Power Lines

The number one cause of death in crane operations is power lines. Citations appear on both years' lists for inadequate clearances. Citations are known to have been issued for power line clearance after accidents have occurred. The number of citations issued for inadequate clearance where there has been no arcing or contact is not clear.

Power line safety requirements for cranes is specified in five chapters of the new rule. There are many training and work practice elements under the rule, with documentation required for some parts. Based on the collective loss history in power line/crane accidents, considerable attention is needed to this exposure.

### Crane Inspections Overview

The top three categories of citations issued are all related to crane inspections. The number one citation is for annual crane inspections. This was required under both the old standard and the new rule, with some differences.

### Annual Crane Inspections

The old standard, under 1926.550(a)(6) stated: "A thorough, annual inspection of the hoisting machinery shall be made by a competent person, or by a government or private agency

recognized by the U. S. Department of Labor. The employer shall maintain a record of the dates and results of inspections for each hoisting machine and piece of equipment." The old standard had some notable shortcomings, and was replaced with a completely new rule.

The new rule specifies that an annual comprehensive inspection be made "[a]t least every 12 months (and) the equipment shall be inspected by a qualified person in accordance with paragraph (d) (each shift) of this section," with an exception for corrective action. If any deficiency is identified, an immediate determination shall be made by the qualified person as to whether the deficiency constitutes a safety hazard or, though not yet a safety hazard, needs to be monitored in the monthly inspections. If the qualified person determines that a deficiency is a safety hazard, the equipment shall be removed from service until it has been corrected. If the qualified person determines that, though not presently a safety hazard, the deficiency needs to be monitored, the employer shall ensure that the deficiency is checked in the monthly inspections.

The new rule on annual inspections has several unresolved issues. Among them are the qualifications of the person performing the inspection. The original standard specified a *competent* person, while the new rule specifies a *qualified* person.

Under OSHA's definition, a *qualified person* means a person who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated the ability to solve/resolve problems relating to the subject matter, the work, or the project.

In contrast, a *competent person* means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

The key difference is that the new rule appears to have lessened the requirements for a person performing an annual crane inspection. A *competent person* has authority to act, while a *qualified person* may not. In reality, the new rule has corrected a long term mismatch with reality.

Typically, a crane owner utilizes the services of a third-party crane inspector. While a third-party inspection is not required by OSHA, many crane owners have seen the benefit of having a true crane expert making inspections annually to potentially catch deficiencies that may have been overlooked. By definition, a third-party inspector may be a *qualified person*, but probably would not meet the requirements of a *competent person*, as they may lack authority to act.

Often, a crane inspector will issue an inspection sticker that is placed on a window or door to the crane cab. The sticker is nice, but not required. There is a misconception that a crane that displays a current inspection sticker has passed, and is acceptable for use. Unfortunately, in many cases, the sticker merely indicates that the inspector was present on the date indicated.

Annual crane inspections must be documented. Usually, this is in the form of a detailed report that indicates acceptability, and specifies deficiencies in detail. As the annual inspector usually lacks authority to act, he tenders his report to the crane owner. Unfortunately, some owners fail to read the report, and merely file it away, believing that all is well. Deficiencies in

annual inspection reports sometimes do not come to light until accident investigations. There is an inadvertent disconnect between some crane inspections and required corrective action.

#### Monthly Crane Inspections

Another inspection requirement, ranked number two on the citation frequency list is for monthly inspections of cranes that are in service. Idle cranes, typically off the jobsite and stored at a yard, do not require monthly inspections until they are placed back in service. Each month the equipment is in service it shall be inspected in accordance with the shift inspection requirements. OSHA specifies that equipment shall not be used until an inspection demonstrates that no corrective action is required.

The monthly inspection shall be documented by the employer that conducts the inspection. Documentation must include the items checked and the results of the inspection, the name and signature of the person who conducted the inspection, and the date. This document shall be retained for a minimum of three months.

#### Pre-Shift Inspections

The third inspection requirement, and ranked number three on the citation frequency list, is for pre-shift inspections. These are typically daily inspections, but could occur as much as three times per day in a 24-hour operation. The new rule requires that a competent person shall begin a visual inspection prior to each shift, which shall be completed before or during that shift. The inspection shall consist of observation for apparent deficiencies. Disassembly is not required as part of this inspection unless the results of the visual inspection or trial operation indicate that further investigation necessitating disassembly is needed. Determinations made in conducting the inspection shall be reassessed in light of observations made during operation.

The new rule provides a list of items that shall be included in the pre-shift inspection. There is no OSHA requirement for documentation of the pre-shift inspection. Most crane owners do require documentation of the pre-shift inspection, which provides two benefits. Most of the "daily" inspections are documented on a checklist form. This provides a listing of items that should be examined, and the form provides the employer with a completed, signed and dated report that provides evidence that a satisfactory inspection has occurred. An additional benefit is that the form can be used to provide feedback to the crane owner that lists needs that may be needing attention, before they become deficiencies that require taking the crane out of service.

One may question how OSHA may be issuing citations for a procedure that does not require documentation. One answer lies in deficiencies discovered during an OSHA inspection. If it can be determined that a deficiency likely existed at the beginning of a shift, and the crane was not taken out of service to make corrections, there is an inadequacy in the pre-shift inspection.

## Summary

The entire new rule is listed in 43 chapters. While initial attention has been focused on a few of those chapters, others have important safety and compliance elements. All of the elements are currently in force with the exception of crane operator certification. Initially, a four-year period was established to allow time for operator training and testing. As of June 2013, only 17 months remain before certifications are required nationally. One should note that, as mentioned above, certification is already mandatory in more than a quarter of the states. These requirements are

specified in some state-plan laws. In other states, certification is required as a pre-requisite to operator licensing in some states. One should note that only license or permit to operate a crane is insufficient to comply with the new rule.

Source: OSHA.gov

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