

The New OSHA Crane Safety Standard

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History

When the original OSHA Act was created, crane safety standards were promulgated for both General Industry (1910) and Construction (1926.) The 1910.180 standard is horizontal, meaning that it applies to all cranes. 1926.550 is a vertical standard, applying to only construction cranes. Neither standard has been updated since the inception of the Act. Cranes, both the practices and equipment have changed significantly over the past 37 years.

The only U.S. non-military crane safety rules that have kept pace with new developments is the ANSI B30 series, now known as ASMEB30. The main ASME crane standard is B30.5, for mobile cranes.

As part of the industry consensus practices now in vogue with OSHA, a committee was formed to write a new crane safety standard for construction. The committee is known as the Crane and Derrick Advisory Committee (CDAC.)

The new rules are awaiting publication for public comment. An update will be provided at the session. The new rule may have been published by the date of the 2008 PDC.

What's New

The new rules have many remarkable changes. At first glance, the document is massive. The rule is currently 119 pages long, which will likely grow in length with the addition of a preamble and formatting. By comparison, the formatted length of 1910.180 is 17 pages, and 1926.550 is 15 pages long. These page references are for relative comparison only. Formatting in various publications will likely alter the length.

The new rules will affect many individuals and entities, many of whom only have ancillary or even no direct involvement with crane activity. Some of the key requirements:

- Project Owners, General Contractors or other controlling entity – will have the responsibility to ensure that ground preparations necessary to meet the requirements for crane setup and operation meet the standard, and to inform the user of the equipment and the operator of the location of hazards beneath the equipment set-up area (such as voids, tanks, utilities) that are identified in documents (such as site drawings, as-built drawings, and soil analyses) if they are available to the controlling entity.
- Crane operators – will be required to be certification by an accredited crane/derrick operator testing organization (such as NCCCO) or meet qualification by an audited employer program. There are exceptions for the military and government.
- Power lines – As power line contact remains the number one cause of crane related fatalities, there are lengthy requirements for crane assembly and operation in the vicinity of power lines.
- Crane assembly and disassembly – As this is the number two killer in crane operations, there are significant new rules to improve safety in this area.
- Signaling – Hand signals must be given according to the ASME chart, with exceptions only where it can be shown that the posted signals are inadequate for current needs. The employer of the signal person shall ensure that each signal person meets the Qualification Requirements. In summary, the signal person must:
 - Know and understand the type of signals used. If hand signals are used, the signal person must know and understand the Standard Method for hand signals.
 - Be competent in the application of the type of signals used.
 - Have a basic understanding of crane operation and limitations, including the crane dynamics involved in swinging and stopping loads and boom deflection from hoisting loads.
 - Know and understand the relevant requirements of the new crane standard.
 - Demonstrate that he/she meets the requirements through a verbal or written test, and through a practical test. There must be written evidence of testing.

More information

Additional sections of the new Standard include fall protection requirements; inspections; wire rope; operational aids; safety devices; hoisting personnel; pile driving; floating cranes; operational considerations; design and testing of cranes. The Standard defines what is, and what is not a crane, and includes both mobile and tower cranes.