

# OSHA's New 20 ft. Rule from Overhead Power Lines

***The effective date of the final rule on Cranes and Derricks in Construction (1926.1408), which will be 90 days after August 9, 2010.***

On Monday August 9<sup>th</sup>, 2010 OSHA published a final rule (new standard) on cranes and derricks in construction. Among other notable requirements the historic 10ft rule from overhead power lines which has not only been the benchmark but the mantra in construction work has now been eliminated for a new 20 ft rule from overhead lines.

The new standard creates a totally new Subpart CC (not a typo) in the OSHA Part 1926 construction standards and is 40 pages long in the federal register. There are 5 new precedent setting sections in the standard regarding crane/derrick proximity to overhead power lines. The previous rule only had requirements to maintain a minimum distance of 10 ft. to overhead lines (up to 50kV) but did little by way of requiring employers to implement measures to help prevent operators from inadvertently breaching the distance. Consequently, overhead line contact still remains one of the leading causes of accidents/fatalities on construction sites. For these reasons OSHA has concluded that the old 10 ft. rule was not effective in preventing these accidents and fatalities involving contact with power lines.

The new standard outlines three options of programmatic requirements containing elements that include such things as training, planning meetings, elevated warning lines, dedicated spotters, insulating load links, non-conductive tag lines, special signage, power line proximity detectors on the crane, range control limit devices, and possibly even a registered PE's involvement. The specific elements to be implemented in order to comply with the new standard depends upon which one of the three options are selected as well as applicability of other OSHA standards including OSHA's Power Generation Transmission and Distribution Standards (1910.269), and Subpart V of 1926 construction standards.

The new standard requires an assessment which include identifying the work zone by one of various means which could include demarcating boundaries (such as with flags, or a device such as a range limit device or range control warning device) or defining the work zone area as the area 360 degrees around the equipment up to the equipments maximum working radius, in order to insure no part of the crane, load line or load (including all rigging accessories) can get closer than 20 ft. to a power line. If there is the ability for a crane to get closer than 20ft to a power line then the employer must meet additional requirements outlined in one of three options.

**1.) Deenergize and ground. Confirm from the utility owner/operator that the power line has been deenergized and visibly grounded at the worksite.**

The cardinal rule for qualified electrical workers is and has always been, **"if it's not grounded, it's not dead"**. This new standard also presumes that all power lines are energized unless the line is deenergized and visibly grounded at the worksite. Deenergization alone is not acceptable since any power line which has been deenergized can still contain a lethal voltage due to induced/inductive coupling, inadvertent reenergization at the source, lightning strikes upstream on the utility system and/or other factors.

**2.) 20 foot clearance. Ensure that no part of the equipment, load line, or load (including rigging and lifting accessories), gets closer than 20 feet to the power line by implementing the measures specified in paragraph (b) of this section.**

If the assessment shows that the crane could get closer than the 20 foot trigger distance then additional actions are required. These additional actions are more voluminous and detailed. They include such things as: a planning meeting with minimum specified agenda items to be covered, non-conductive tag lines (which need to meet the applicable ASTM standards), Erect and maintain an elevated warning line, barricade, or line of signs, in view of the operator, equipped with flags or similar high-visibility markings, at 20 feet from the power line, If the operator is unable to see the elevated warning line, a dedicated

spotter must be used with more actions required (including additional items such as positioning to effectively assess the clearance distance, direct and continuous communications with the crane operator to insure the clearance distance can be maintained). Additionally one of the following must also be implemented:

- A proximity alarm set to give the operator sufficient warning to prevent encroachment.
- A device that automatically warns the operator when to stop movement, such as a range control warning device. Such a device must be set to give the operator sufficient warning to prevent encroachment.
- A device that automatically limits range of movement, set to prevent encroachment.
- An insulating link/device, installed at a point between the end of the load line (or below) and the load.

Such a device must also be listed by an OSHA Nationally Recognized Testing Laboratory (NRTL). Since there are currently no NRTL standards for an insulating link the crane standard is allowing employers who have existing inventory of nonapproved links to continue to use these links for an additional two years (up to a total of three years after the effective date of the final rule), so long as the same protections required for the alternative measures available during the one-year interim period remain in place. In other words there are other additional options which must be used after one year from the effective date of this standard if non NRTL listed insulating links are in use.

These additional measures state that employees who may come in contact with the equipment, load line or the load must be insulated or guarded from the equipment, the load line and the load. One option recognized by the standard could be the use of insulating gloves rated for the voltage involved. Naturally there are voltage limits based upon the class of the gloves and they obviously can only be used at distribution level voltages (below 36,500 volts). Also issuing this type of PPE to employees requires additional employee training.

Option 3 is required when the crane has the ability to encroach boundaries specified in Table A of the standard. The details under option 3 are too voluminous for the purposes of this overview article. This overview is in no way meant to cover all of the detailed requirements of the new standard and we've only been discussing an overview of the power line requirements of the standard. Training is also required by this standard as well as other general standards for employees to be trained in the hazards they could be exposed to as well as the methods of avoidance of those hazards and the specific standards and work rules which apply (OSHA 1926.21(b)(2)). This new standard also does not apply to work covered under the Power Generation Transmission and Distribution Standard (OSHA 1910.269) and/or Subpart V (OSHA 1926), however work covered under these standards require "qualified" persons who are trained in accordance with those standards and entirely different rules and clearance distances apply for these qualified workers. Are your "qualified" workers trained in those standards to satisfy OSHA?

It is always recommended that an experienced safety professional be consulted for guidance with the application of the appropriate standards for the work being performed as well as interpretation and guidance with respect to implementing the standards appropriately. It's no secret that OSHA, in their words is "back in the enforcement business" and they have stepped up inspections and enforcement actions.

[Click here](#) for the new OSHA standard and associated press release.

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