

Team Safety Talks: Cranes and Overhead Power Lines

Company Name _____ Job Name _____ Date _____

In a recent four-year review of work-related crane fatalities, 312 people died and only 30 of these were crane operators. The other unfortunate people were working on or near the crane – laborers, riggers, welders, iron workers, carpenters or truck drivers. 72 people, or 23%, died when the crane contacted an energized overhead power line. Guiding the load, walking the load in a pick-and-carry operation, or contacting the wire rope when the crane touched the power line were the most common ways electricity found a path to a worker.

Overhead power lines kill! For this reason everyone in proximity to a crane, when energized lines are near, must stay alert. It takes employee teamwork to successfully and safely operate under this combination of conditions.

Power lines can be hard for the crane operator to see. They sometimes appear to be either further away or much closer than they really are. It is difficult for the human eye to accurately judge the clearance between the crane's boom or line, and a power line. Fellow workers can help assure that safe clearances are being maintained between the crane, the line, the load and the overhead power line. The table below shows basic clearance minimums, which apply to *all areas* around the power line – above, below or to either side:

Power Line Voltage	Minimum Clearance
up to 50k	10 feet
50k to 75k	11 feet
75k to 125k	13 feet
125k to 175k	15 feet
175k to 250k	17 feet
250k to 370k	21 feet
370k to 550k	27 feet
550k to 1,000k	42 feet

What can you do to help ensure safe operations around energized power lines?

- Help pre-plan the work. Before the crane comes to the project, determine where it will sit and where it will travel. Avoid areas with power lines if possible, de-energize if possible, or mark and flag the area as a last resort.
- Consider any overhead line "hot" until the owner or utility company verifies that it is not energized and is visibly grounded. The line must be "cold" if minimum clearance cannot be met.
- Look carefully before the boom is moved, particularly in congested areas of poor visibility. Get additional workers to help with the move if a clear view of all areas is not possible.
- Place a visual marker, such as a florescent line or flagging to mark off the danger zone.
- Never store materials that must be accessed by a crane beneath a power line.
- If you are on the crane when contact is made, stay with the crane. If you must get off, jump as far from the crane as possible, keep your legs together and hop away from the area.

Stay alert! Cranes vs. power lines only have one winner – the power lines!

Safety Recommendations: _____

Job Specific Topics: _____

S.D.S Reviewed: _____

Attended By: _____

