LESSONS LEARNED

Working Under Overhead Utilities

WHAT HAPPENED?

While an equipment operator was using an excavator to move a 1600 air-compressor in close proximity to two 25 ft. high 13Kv overhead power lines, a worker rigged up a compressor. The compressor was moved from point A to B. Once moved, an employee unhooked the excavator from the compressor and stepped out of the excavator's way and gave an "all clear" to raise excavators arm. The operator raised the excavators arm to clear the air-compressor and then tracked backwards under the power lines. The operator then stopped tracking and swung the excavator arm without bringing it back down enough to clear the power lines. The excavator arm inadvertently made contact with the overhead power lines causing one line to break and fall to the ground. Once the operator was aware of the line strike, he remained in the excavator cabin and instructed the rest of crew not to approach the excavator. The power line came apart and landed on wooden mats approximately 50 ft. behind the excavator which started a small fire on mats.

CAUSAL FACTORS

- JTSA was not held where this task was actually being performed.
- The task of moving the air compressor was not discussed on the JTSA.
- No task change JTSA was completed.
- Operator failed to assign a designated spotter out of 3 laborers working close proximity to the work activity.
- Laborers failed to recognize the need to volunteer as spotter.
- Operator not aware of surroundings and potential hazards.
- No overhead signs or goal posts erected, as is considered a best practice in our industry.

LESSONS LEARNED

- JTSA must be performed at the location where work is being performed and any time an activity or task change occurs.
- Operator must assign a spotter when operating equipment while working close proximity to overhead utilities and ensure spotter does not have any other responsibilities.
- Laborers have authority to stop the work and must be willing to volunteer when the opportunity presents itself.
- Warning signs/devices erected when working around overhead utilities
- The minimum 3 of 5 control layers were not in place prior to operating equipment in close proximity to overhead utilities.
- No awareness training of dedicated spotter had been conducted prior to operations commencing.
- Stop Work Authority training has not been consistently conducted in accordance with our safety program.
- Lowest point of powerline in conjunction with boom height reach should be established before beginning work.
- Air horns for spotters have been placed in all operating equipment, proximity sensors have been ordered, and physical barriers are now in place.
- Understanding the time it takes to plan and be proactive vs the time and money that is invested to be reactive after an incident needs to be understood by all positions of the hierarchy.

An immediate stand down was conducted and a decision was made by operations and client to bury overhead power lines and eliminate the overhead hazard.