

CSI Country Wide Case Study Safety Strategy Discussion

Construction Safety Investigator



Instructions

The objective of this tool is to provide field supervisors with information to proactively engage workers and discuss safety related concerns that they may encounter. Safety discussions should not be limited to the subject above and should pertain to the activities that workers will be involved in that may have the potential for safety related exposures.

Case Day:

January 30, 2006

Accident Type:

Crane Accident - Dismantling

Relevant laws, rules and codes may include:

29 CFR 1926.21(b)(2), 29 CFR 1926.550, Manufacturer Operator's Manual

Case:

A 37-year-old male carpenter's helper was fatally injured while assisting in disassembling a lattice boom on a truck-mounted crane.

Accident Detail:

A truck-mounted crane with an 80-foot lattice boom had been used to set girders for a bridge. The next task required the overall cranes boom be lengthened to 150 feet. A 30 and a 40- foot lattice boom section were to be assembled and added into the existing 80-foot boom.

The boom on the truck-mounted crane was to be disassembled between the 40-foot center section and the 20-foot lower boom section.

The crane operator and the victim were working together to remove pins that secured the 40- foot center section to the base boom section. After dislodging the second bottom pin, the boom hinged on the top two pins and fell on the victim's back pinning him to the ground.

The supervisor summoned a coworker who contacted 911 and company managers immediately. A hydraulic crane located nearby was brought to the site and used to lift the boom off of the victim.

Reconstructive Safety Evaluation:

- What are some of the possible causes of the accident being discussed?
- What actions could have been taken that might have prevented this accident from occurring?

Accident Scene Conclusion:

Investigation indicated that the victim, who was employed as a carpenter's helper was hired as a seasonal worker and spoke only Spanish. He had attended a general employee orientation session and was provided with a copy of the company's corporate safety and health program at the time of hire, but this document was written only in English; the victim was not provided with training that specifically addressed hazards associated with working near cranes.

The safety and health program did not address specific procedures for protection of workers during crane assembly and disassembly.

Safety meetings (called safety huddles by the company) were routinely held each morning before work, but a safety huddle was not held on the day of the incident because the supervisor who conducted them arrived to work late due to an off-site appointment. These meetings were conducted in English.

The company had a team of two workers, who ordinarily conducted crane boom disassembly, but one of these workers was occupied with another crane on the day of the incident, and the other worker had not arrived on the jobsite when disassembly began.

Preventive Safety Measures Include:

- Ensure that manufacturer's safety recommendations for proper blocking and support procedures to prevent movement of the boom sections are implemented when disassembling cranes.
- Ensure that all workers assigned to disassemble or assist in disassembling cranes are trained on correct procedures, using a language and literacy level that workers can understand, so that they can recognize the hazards of improper disassembly sequences.
- Ensure that pre-work safety meetings are conducted each day to discuss the work to be performed, identify the potential safety hazards, and implement safe work procedures to control the hazards.

Attendance Roster

Reference: This case was reported in the NIOSH Fatality Assessment and Control Evaluation (FACE) Program, Report #2006-01.

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