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:

CHUBB

February 2009

Accident Type:

Site Work Accident - Tree Removal

Relevant laws, rules and codes may include:

The work being performed at this worksite falls under the OSHA logging standard (29 CFR 1910.266), which interprets the felling of trees in preparation for construction activities, such as the building of roads, to be a logging operation.

Case:

Worker suffered fatal injuries when a tree he was attempting to fell struck the cab of the hydraulic excavator he was operating.

Accident Detail:

The victim was working for a site development company preparing land for an upcoming construction project. The operator was using a hydraulic excavator to push down trees by first digging around the base of the tree to loosen the root system, placing the bucket of the hydraulic excavator against the trunk of the tree and extending the boom outward to push the tree away from the hydraulic excavator.

In addition to the victim, another worker was nearby operating a bulldozer to move the downed trees into a pile for burning. The supervisor was the third worker and he was operating a bulldozer to blade the road on a hillside away from, and above, the area where the victim was working.

It is believed that the victim was engaging the boom to push a sixty-foot tall sweet gum tree over when it fell backwards onto the cab. The weight of the tree caved in the cab's roof and trapped the victim inside where he died as a result of mechanical asphyxia.

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:

Factors identified in this investigation include failure to consider and prepare for the environmental conditions of the work area, such as wet and unstable soil, shallow root system of the trees to be felled, and wind speeds which may hamper the hydraulic excavator operator's ability to control the direction the tree will fall.

Preventive Safety Measures Include:

- Complete a Job Safety Task Analysis that includes scope of work, anticipated exposures and safety equipment and/or procedures needed to ensure the task is completed successfully and safely.
- Conduct a pre-work meeting to review the JSTA and ensure workers understand the task to be completed, any safe working procedures and have the necessary safety equipment.
- Ensure that prior to commencing tree-felling operations; a plan is developed that includes guidelines for continual evaluation of the worksite for safety hazards, as well as procedures for implementing hazard control measures.
- Ensure that the safety program, manual, and training include specific guidance on recognizing and mitigating hazardous work site conditions.
- Ensure that the equipment being used on the job provides the highest level of physical protection for the workers and is the most appropriate for the work being done.

Attendance Roster	

Reference: This case was reported in the NIOSH Fatality Assessment and Control Evaluation (FACE) Program.

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2