

## **FATAL ALERT**

**July 9, 2005**

Two employees were engaged in constructing fence under contract for a government agency. The project consisted of removing, repairing, or constructing 11.8 miles of fence in dry alpine terrain at approximately 8000 feet elevation along the top of a mountain chain. The mishap occurred in a forested area of lodgepole pine that was approximately 50 feet tall.

Prior to doing the fence construction work, the employees would clear a path approximately eight to ten feet wide through the timber. At the mishap location, the forest consisted of standing pine trees, deadfall trees lying in the ground, and dead trees leaning against live trees.

The mishap occurred approximately 9:30 a.m. on a Saturday morning. When the mishap occurred, one employee was engaged in felling trees to clear the path for fence construction. The second employee was engaged in fueling the project site vehicles (two skid steer loaders and an ATV) and then using the smaller skid steer to clear felled trees from the fence path.

The fatally injured employee had felled a tree to the northwest, over a slight rise, and then down a gentle incline from where the second employee was working with the equipment. The tree being felled at the time of the mishap had a dead "leaner" tree resting against it. The "leaner" tree was in contact with the live tree approximately 15 feet above the ground. The "leaner" tree extended some distance away from the live tree at an angle of less than 45 degrees from the horizontal.

As the live tree began to lean and fall, the "leaner" tree was released and fell to the ground. In doing so, the "leaner" tree impacted the employee on the head inflicting fatal injuries.

The second employee did not observe the mishap and was not aware that it had occurred. After a period of time (possibly as much as 30 minutes), the second employee, who was operating a skid steer loader, realized he had not recently seen any trees fall up ahead. Initially he thought the other employee might have walked a short distance to a company pickup truck to refuel his chainsaw or sharpen the blade. After a bit longer, the second employee still did not see any work being done up ahead. When he went to investigate, he located the fatally injured employee. Both employees were First Aid and CPR trained. The second employee initiated appropriate medical treatment but did not receive a response. He then summoned "911" assistance.

### **Significant Factors**

The two employees were a father and son (the father was fatally injured). The fence construction work they were doing supplemented their primary income from farming operations. They had completed numerous fence construction projects for the government agency in a three state area and had established an exemplary reputation for quality work completed ahead of schedule.

The prior projects were in open "prairie like" terrain quite similar to the location of their farming operation. The farm work, which consisted of fence repair & construction along with brush clearing and firewood cutting, provided the knowledgebase for the fence construction contracts completed earlier.

The mishap occurred in an area unlike the prior projects or the farm. As the employees transitioned to this forested project site, clearing the path for the fence involved activities much more like logging than brush cutting. Whereas farm work and prior projects in relatively open terrain involved sporadic clearing

of brush and small trees that could be “manhandled”, the trees in the forest required felling techniques typically utilized by loggers and woodsmen. However, the knowledgebase of the two employees was not commensurately expanded.

The workplace safety standards for logging operations have specific guidelines and techniques to be used when felling trees. The specific requirements concerning personal protective equipment, evaluating hazards associated with a tree about to be felled, assuring a clear retreat path from a tree being felled, and cuts to made to assure control of a falling tree were not followed at the mishap site.

It is not known why the fatally injured employee did not recognize and/or consider the dead tree leaning against the tree he was about to fell. However, as the employee cut the live tree and it began to lean, the dead “leaner” tree was released from above and fell on him.

### **Recommendations**

- All employers who engage in logging operations, in even a supporting role, must be cognizant of when the OSHA logging standards (1910.266) apply to their operations.
- All employers and employees engaged in operations where the OSHA logging standards apply must be fully versed on the requirements of those standards. Particular emphasis should be placed on providing required PPE, assessing the hazards of trees about to be felled, having a clear retreat path, using the stipulated face cut and back cut felling techniques, and meeting the training requirements.
- All employers and employees who engage in logging operations should review this Fatal Alert and use it as the catalyst for stimulating training discussion.