ONTARIO FORESTRY SAFE WORKPLACE ASSOCIATION FALL / WINTER 2006

INDUSTRY ALERT

FATALITY

Worker crushed to death between barrel and structure of load aligner

What happened?

Three workers were in the process of dismantling a load aligner, which consists of two large steel barrels connected to a metal structure through which tractor-trailers loaded with eight-foot crosswise logs are driven to align the load. One of the barrels had been successfully removed. Using a cable attached at two points to the barrel, an excavator was in position to lower the second barrel to the ground. While one of the workers was on top of the barrel removing the bolts, the barrel began to pivot and the worker was pinned between the barrel and the structure. The worker sustained severe crushing injuries and died at the scene of the incident.

Why did it happen?

The barrel was not sufficiently secured by the lifting device – in this case, an excavator. Because there were only two attachment points between the excavator and the barrel, very little force could have caused it to pivot. Hazards were not sufficiently assessed before the dismantling of the load aligner got underway. No fall protection equipment was used. Had the worker been connected to a fall protection system, he might have been able to avoid being between the barrel and the structure when the barrel began to pivot.

How can it be prevented?

Non-routine tasks of any kind involve unique hazards that must be thoroughly assessed before the task begins. The fact that the load aligner was 25 to 30 years old and had been used extensively would have been one factor to consider as part of the overall hazard assessment prior to dismantling it. The type of lifting device to be used to hold the equipment while it was being dismantled, and the way in which the equipment was to be secured to the lifting device, were also factors that needed to be carefully considered before starting the job.

Section 51(1)(a) of the Regulations for Industrial Establishments requires that any lifting device "be so constructed, of such strength and be equipped with suitable ropes, chains, slings and other fittings so as to adequately ensure the safety of all workers". An excavator was not the proper equipment for this task because it did not have the fine control required for the safe lifting of the load aligner barrel.

In order for workers and supervisors to determine if the lifting device and technique they use controls all hazards, they require training in proper hoisting and rigging methods and procedures. Guide ropes, which should have been used in addition to the two attachment points between the barrel and the lifting device, may have prevented the barrel from pivoting and crushing the worker. But if the centre of gravity of a load has not been properly determined, guide ropes can't always prevent the kind of uncontrolled motion that led to this fatality.

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