

Fatality Investigation Report

OR 2004-21-1

Truck driver crushed by front-end loader in mill yard

SUMMARY

On September 23, 2004, a 50-year-old log truck driver was killed in a mill yard when he was crushed against his load of logs by a front-end loader. The log truck was being unloaded at 6:35 a.m., shortly after the mill yard opened. The loader operator assumed the driver was in the cab of his truck, because he did not see him, and it appeared the middle two wrappers on the load had been removed already. According to standard procedure, the loader moved forward to secure the load of logs to allow the driver to safely remove the last two wrappers. A second loader operator working in the yard at the time saw a hard hat on the ground near the truck, and radioed to the first operator to back away. The victim was found dead at the scene, having been crushed between the loader and the load of logs.



This stock photo shows the general position of the log truck driver in this incident as a front-end loader at the mill yard approached the load.

CAUSE OF DEATH: Traumatic asphyxiation

RECOMMENDATIONS

- **Eye contact and a designated “ready” signal must be established between a mobile machinery operator and a truck driver working together to load or unload a truck.**
- **Regular safety training and retraining should occur in a hazardous work environment.**
- **A site hazard assessment should include a documented job safety analysis and disciplinary process.**

INTRODUCTION

On September 23, 2004, a 50-year-old log truck driver was killed in a mill yard when he was crushed against his load of logs by a front-end loader. OR-FACE was notified of the incident on September 27. The findings for this report are based on the OR-FACE investigation and consultation with the lead investigator from OR-OSHA.

The employer operates several mills and timber holdings. The log yard where the incident occurred is adjacent to one of the mill sites. The mill site employs about 150 employees, with 6-10 employees working in the log yard at any one time. Six employees were in the log yard at the time of the incident.

Log yard rules were posted at the main entrance to the log yard. Rules required hard hats, four wrappers on the load, and that drivers always stay in clear view. The unloading procedures were relayed to the independent truck drivers either verbally or not at all, according to interviews. Also according to interviews, log yard policy and procedures were not consistently followed by personnel working in the yard.

The operator of the unloading machine had been on this particular machine for 3 years, and had been running other unloading equipment for 20 years. He was the lead individual in the log yard, responsible for log yard personnel – setting work schedules, day-to-day operation, and discipline – and also responsible for direction and control of the log trucks entering the yard, including training drivers on log yard policy and procedures.

Drivers regularly helped other drivers pull wrappers. Drivers were not required to be in a certain position when the unloading machines approached the load. The log truck driver in this incident worked as an independent operator. He drove a truck owned by another individual, but was not considered an employee. The owner took care of the truck and the driver billed the owner for time worked. It is unclear how many years the driver had been driving log trucks, but he was known as a careful driver. As an independent contractor, the driver was not covered by Workers' Compensation insurance, and was responsible for his own safety training.

INVESTIGATION

The log yard had just opened for the day. At 6:35 a.m., the log truck in this incident was the eighth truck to be unloaded. The morning was dark and foggy. The front-end loader used lights on the machine to help with visibility.

Normal operating procedures at the yard called for log truck drivers to park in an area designated by the loader operator. Drivers were then allowed to remove two of the four wrappers on the load. Once the loader operator saw the two wrappers had been removed, the front end-loader would be moved forward to secure the load while the driver removed the remaining two wrappers. After the last two wrappers were removed, drivers would stand at the front or rear of the truck as the load was lifted off. The general manager for the mill complex stated he was not sure if the drivers always gave a signal to the loader operator that it was all clear to proceed with unloading.

In this incident, the loader operator assumed the driver was in the cab of his truck, because he was not visible, and it appeared the middle two wrappers on the load were already removed. The operator moved the front-end loader forward to secure the load on the truck, so the remaining two wrappers could be safely removed. The view in front of the loader, though well lit, was obstructed by the unloading arms of the machine.

A second loader operator working in the yard at the time saw a hard hat on the ground near the truck, and radioed to the first operator to back away. The log truck driver was evidently still in the process of removing the first two wrappers from the load as the front-end loader approached. The victim was found dead at the scene, having been crushed between the loader and the load of logs.

RECOMMENDATIONS/DISCUSSION

Recommendation #1. Eye contact and a designated “ready” signal must be established between a mobile machinery operator and a truck driver working together to load or unload a truck.

An operator of mobile machinery may often find the view forward obstructed by the raised arms of the loader, especially when loaded. An operator should never approach a load on a truck without first establishing eye-to-eye contact with the driver of the truck and receiving a “ready” signal by hand or other means from the driver. Drivers should stand outside, to the front or rear of the truck, and not remain in the cab. By standing outside in a visible location, the truck driver provides a second set of eyes for the operator, and also avoids hazards associated with remaining in the cab during a loading or unloading operation. In some instances, injuries have occurred when the hydraulics have failed on a front-end loader, causing the load to slam back down on the truck hard enough to tip the truck on its side.

Recommendation #2. Regular safety training and retraining should occur in a hazardous work environment.

A log yard must incorporate drivers into its safety training program, and make sure they are adequately informed of the severity of the hazards involved, and comply with safe practices. Individuals involved in this incident agreed it would not have occurred if they had followed existing log yard rules. A major difficulty in this instance is the necessary cooperation between permanent staff at the yard and a large number of independent truck drivers who may not be adequately informed of safe policies and procedures while unloading their trucks. From the perspective of the drivers, the unloading process is likely to be different at each different log yard.

In a hazardous operation, retraining needs to occur regularly in order to emphasize the importance of safety. Repetition reinforces the content of the message, ensures that everyone is included, and also demonstrates to workers that the employer is serious about maintaining a safe work environment. Since this incident, the mill has implemented an in-depth retraining program with all workers at the log yard, including drivers.

Recommendation #3. A site hazard assessment should include a documented job safety analysis and disciplinary process.

A hazard survey of the workplace and a job safety analysis can identify hazards and unsafe work practices. Safety training can address these hazards, but occasionally disciplinary processes must be used to enforce the training. Documented disciplinary action helps to prevent workers from bending the rules little by little, until safety is compromised. Enforcement of the rules, and corrective action when a hazard is identified, should be immediate and consistent.

REFERENCES

Center for Research on Occupational and Environmental Toxicology. Search “Powered industrial trucks.” Online resource: <http://www.croetweb.com/>

FOR MORE INFORMATION

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CROET at OHSU performs OR-FACE investigations through a cooperative agreement with the National Institute for Occupational Safety and Health (NIOSH), Division of Safety Research. The goal of these evaluations is to prevent fatal work injuries in the future by studying the work environment, the worker, the task, the tools, the fatal energy exchange, and the role of management in controlling how these factors interact.

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