

*Fatality
Assessment and
Control
Evaluation Project*

Public Health

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SUBJECT: Log Rolls off Truck at Sawmill Killing Employee

SUMMARY

In December 1998, a 31-year-old male (the victim) sawmill employee was killed when struck by a log that rolled off the truck as he was preparing it to be unloaded. The victim had just returned to the sawmill with a load of poplar logs that were stacked well above the standards. Three straps had been placed around the load to keep the logs in place. Although he was waiting in line for his truck to be unloaded, he exited the truck and began releasing the straps. He loosened the straps on the driver side and then went to the passenger side to remove them. As he neared the passenger side door, he was struck by a falling log. The sound of the fallen log alerted the truck driver in front of him. He got out of his truck and saw the victim pinned under a log. He initiated the call to Emergency Medical Services (EMS) at 9:10 a.m. and they arrived at 9:12 a.m. The victim was transported to the hospital where he was pronounced dead by the county coroner.

In order to prevent similar incidents from occurring, FACE investigators recommend:

- The height of the logs should not exceed the height of the standards on the truck;
- Binders on logs should not be released prior to securing with an unloading device [1910.265(d)(i)(b)];
- Binders should be released only from the side on which the unloader operates except when the person making the release is using a remote control device or is protected by racks [1910.265(d)(i)(c)];
- Written policies should be in place regarding unloading procedures for loggers at

- the mill, and the policies should be enforced by the mill owners; and
- Loggers should consider wearing head protection (hard hat) to protect against head injuries from falling objects [1910.265(g)].

INTRODUCTION

FACE investigators were informed of the death of a logger on 6 December 1998. An investigation was initiated and a site visit made on 15 December 1998. An interview was held with the county coroner who was called to the hospital and visited the site. Photographs of the scene were viewed and copies of the photos and EMS run sheet were obtained.

The company employed 80 persons. Most of the timber is delivered by independent loggers. The remainder of the timber is delivered by company employees who use a truck equipped with a knuckleboom loader. The logger was an employee of the sawmill and was working alone. He was using the truck to pick up timber and had returned to have the truck unloaded. It is unknown the length of time the victim worked for the sawmill.

The company owner said that there were signs posted at the gate and office of the sawmill that stated logs were not to be unloaded until the load was secured. According to OSHA records, the sawmill's unloader and purchasers were unaware of the contents of these signs. Informal interviews with independent loggers confirmed that there was no method of securing the load before releasing the binders in effect at the site. It is unknown what type of safety training, if any, the victim received.

Once the truck driver enters the property, they are to wait in line until they reach the concrete pad, or unloading area. According to the posted signs, drivers are supposed to ensure their loads are supported prior to releasing chains/straps. Interviews with drivers indicate that trucks are often unstrapped early, prior to reaching the concrete pad, especially on dry, sunny days. The drivers said that this speeds up the unloading process.

INVESTIGATION

The day of the incident was a sunny, clear day. The victim began work early that morning picking up logs from independent loggers. The victim drove one of the sawmill's trucks to pick up some logs and then returned to the sawmill to unload them. The stack of logs were bound with three straps. Standards on the sides of the truck were approximately five feet high and the logs were stacked approximately three feet higher than the stakes.

He arrived at the sawmill with a full truck about 9:00 a.m. He entered the line of trucks to wait for his turn to be unloaded. The sawmill yard was fairly level, although the area where the victim parked his truck had a slight slope towards the passenger side of the truck. The driver exited the vehicle, loosened the three straps on the driver's side, and

then went to the passenger's side to remove the straps. As he was reached the passenger side, one of the logs fell off the truck and struck the victim in the head. Although the incident was unwitnessed, an independent logger in the truck ahead, heard the sound of a log falling. He knew that a log should not have fallen and went towards the sound. He found the victim pinned under a log. Immediately 911 was called and EMS workers arrived on the site within two minutes. The victim was transported to the hospital and pronounced dead by the coroner

CAUSE OF DEATH

Cause of death was traumatic head injuries.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: The height of the stack of logs should not exceed the height of the standards on the truck.

Discussion: In this case, the height of the logs exceeded the height of the standards by approximately 3 feet. Stacking the logs in this fashion, increases the likelihood that the logs will fall off once binders are released. This is especially true if the load is not secured prior to releasing the binders. Irregular shaped logs and knots in the logs do not allow them to rest in a stable position while being transported. Had the height of the logs been below the standard height, any shifting would present less risk to the driver because the standards would most likely contain the logs once the binders were released. An unloading device or unloading line, however, should still be used to secure the logs while the binders are being released even if the logs are not over stacked. If the load straps are continually tightened during the trip to the sawmill and some of the logs are knotted, built-up pressure could cause a log to "pop" over the standards.

Recommendation #2: Binders on logs should not be released prior to securing with an unloading line or unloading device. [1910.265(d)(1)(i)(b)]

Discussion: Sawmill regulations require that the load be secured with an unloading line or device prior to releasing the binders. This would prevent the logs from rolling off the truck if they have shifted in transit. In this case, an unloading line or device was not used. Front-end loaders, knuckleboom loaders, and tractors equipped with hydraulic attachments are examples of unloading devices. An unloading line is a cable used to bind the logs into bundles, acting as a secondary means of securing the logs. The use of such could have prevented any logs from rolling off the truck. In addition, it is safer to release the binders on the driver's side using a mechanical device to support the logs and to eliminate going to the passenger side to pull off the straps. If a logger does, however, go to the passenger side to pull off the straps, the grapple should be extended to the passenger side of the truck, or the front-end loader moved to the passenger side and the logs secured. If this is done prior to the logger going to the passenger side, this will prevent logs from falling off the truck.

Recommendation #3: Binders should be released only from the side on which the unloader operates except when the person making the release is protected by racks or is using a remote device [1910.265(d)(1)(i)(c)].

Discussion: There are sawmill regulations in place that address the releasing of binders on logging trucks and require specific actions. This requirement enforced in conjunction with recommendation #2, would require sawmill employees to use a device to secure the logs while being released and that the releasing be done on the side from which the unloader operates. This enables the worker to be protected while releasing the tension from the binders. From our investigations of similar logging fatality cases, it appears that most of the time the binders are released on the driver's side of the truck without any protective devices in place to secure the logs. In this particular case, the binders were also released on the driver's side without any means of protection. The fatal incident, however occurred on the passenger side. Therefore, if a worker feels they need to go to the passenger side to release/remove binders, some type of protection (remote control device, rack, or equivalent means) should be employed to protect them from falling logs. They can also use the front-end loader to secure the logs while on the passenger side. It is likely that if a protective device had been used on the passenger side, the worker would not have been fatally struck by a falling log.

Recommendation #4: Written policies should be in place regarding unloading procedures for loggers at the mill, and the policies should be enforced by the mill owners.

Discussion: Written guidelines for unloading procedures at the mill would help ensure that the logs are unloaded properly, providing a safe work environment for loggers, drivers, and the employees of the mill. There were visible signs on the property which stated the binders were not to be unfastened until the load was secured. Conversations with other drivers, however, indicated that these rules were not routinely followed.

Recommendation #5: Loggers should consider wearing head protection (hard hat) to protect against head injuries from a falling log.

Discussion: In some instances, hard hats may provide adequate protection against lethal head injuries from being struck by falling logs. Head protection is required when there is potential for head injury from falling objects. In this instance, such a hazard did exist and would warrant the use of head protection. It is unclear whether wearing a hard hat in this incident would have saved the victim or reduced the severity of the injury.

REFERENCES

American Pulpwood Association, Inc. (APA), The Logger's Guide to the New OSHA Logging Safety Standards (as revised September 8, 1995).

Occupational Safety and Health Standards for General Industry, 29 CFR 1910.265 Sawmills.