

Fatality Investigation Report

OR 2006-09-1

Logger killed by 41-foot pole sliding down steep hill

SUMMARY

On March 21, 2006, a 21-year-old logger, working as a [choker setter](#) in a [yarding](#) operation, was killed by a pole sliding down the hillside from above. The rigging crew had just hooked a [turn](#) of logs to a [skyline](#) cable, and moved to a location in the clear of the turn as it moved to the [landing](#). While the turn was heading uphill, a narrow 41-foot-long pole with a sharp end came sliding downhill toward the crew. The pole narrowly missed the [rigging slinger](#). The choker setter was struck and impaled by the pole, and was carried about 27 feet downhill. The victim died shortly following the incident.



This stock photo of a precariously balanced log at a landing site suggests one possibility for the origin of the sliding pole in this incident. An unsteady log at a landing becomes more dangerous when the logs are placed too close to a steep edge. Gravity is a primary source of hazardous energy in the woods.

CAUSE OF DEATH: Massive abdominal injury

RECOMMENDATIONS

- **On hillsides, stay alert for loose objects.**
- **Make sure the landing area is large enough to keep logs from rolling or sliding back down the hill.**
- **Make sure that workers at the landing site can communicate with the crew on the ground.**
- **Training and supervision is necessary for inexperienced personnel working in the woods.**

INTRODUCTION

On March 21, 2006, a 21-year-old logger, working as a choker setter, was killed when a log slid downhill from the landing and struck him. OR-FACE was informed of the incident the same day by Oregon OSHA. This report is based on information from Oregon OSHA and medical examiner reports.

The logging firm in this incident engaged in all aspects of logging, employing 55 workers in Oregon. Eight workers were at the site at the time of the incident. The yarding operation was conducted on land that was privately owned. The tract had been clearcut and was being logged with a mobile [yarder](#) using the [shotgun logging method](#) with a motorized carriage. The crew had been working on the unit for three days.

The rigging crew consisted of three workers: a rigging slinger with 15 years of experience in the woods, and two choker setters. The choker setter in this incident was in training, under the watchful eye of the rigging slinger, who instructed the young worker to stay near him when each turn of logs was in motion. The choker setter had been given a written safety orientation prior to working in the field.

INVESTIGATION

Shortly after 7 a.m. on the day of the incident, the logging crew had cleaned up all of the logs above them on a steep hillside. After setting a turn of logs underneath the skyline, the crew moved to a location uphill and clear of the turn as it moved to the landing, about 320 feet farther up the hill.

The rigging slinger was watching the turn of logs moving below them. He caught a movement out of the corner of his eye and leaned forward to barely avoid the sharp end of a 41-foot pole as it slid down the hillside. He stated that he did not even hear the pole as it slid toward them.

The pole came from above and behind the crew, from the direction of the landing. It remains uncertain whether the pole was dislodged from the landing or from somewhere else. The incline of the hillside was 64%, and clear of timber, which greatly increased the risk of rolling logs or debris.

The choker setter was standing next to the rigging slinger, and was struck and impaled by the pole. He was carried 27 feet down the hill by the momentum. The rigging slinger immediately called for help. The victim died shortly following the incident. Conditions were too foggy for a helicopter, and the deceased was removed from the unit by a local ambulance.

RECOMMENDATIONS/DISCUSSION

Recommendation #1. On hillsides, stay alert for loose objects.

The crew in this incident had inspected the terrain far up the hillside to remove loose debris that could potentially roll or slide down the hill. The rigging slinger, or in some cases the [hooktender](#), is responsible for identifying and correcting hazards. On a steep hillside, gravity is the primary source of hazardous energy, endangering workers with falling objects, and from slips and falls. Workers must stay constantly alert for moving objects, and to keep their own balance while moving and working on a hillside.

Recommendation #2. Make sure the landing area is large enough to keep logs from rolling or sliding back down the hill.

This incident emphasizes the need to be sure the landing area is well planned, and large enough to keep landed logs from rolling or sliding back down the hill. Workers at the landing area should ensure that the decking area and landing chute are stable and well maintained.

It could not be determined with certainty if the log in this incident came from the landing, but the OSHA investigator inspecting the site discovered a similar log between the landing and the crew, which apparently came from the landing. The loading area at the landing was on the far side of the hill away from the crew working below, making this incident all the more puzzling.

Recommendation #3. Make sure that workers at the landing site can communicate with the crew on the ground.

A signal should be worked out in advance between the chaser and the yarder engineer on the landing, so if the chaser sees a log or other material go over the edge, he can alert the yarder engineer to blast the whistle. A long blast of the yarder's whistle can alert the rigging crew that logs or debris may be coming their way.

Recommendation # 4. Training and supervision is necessary for inexperienced personnel working in the woods.

The rigging slinger in this incident was correct to have the inexperienced choker setter stay by his side while the turn was in motion. Every turn of logs poses a different hazard once it starts to move, and experience is the best teacher for knowing the risks and how to avoid them. With 15 years of experience, the rigging slinger knew where to stand away from the turn, and also away from the landing site above. This incident emphasizes the unpredictability of the forest environment, and the need for the crew to acquire experience and judgment. The incident also emphasizes that each worker must incorporate that experience and be constantly vigilant for unexpected hazards.

REFERENCES

Oregon OSHA. (1993). *Yarding and loading handbook*.

GLOSSARY

Choker setter: Person in a logging operation who places the choker around the log to be hauled to the landing; one who attaches chokers to logs in the woods for the skidding unit; beginning job for novice loggers.

Hooktender: Typically the highest-ranking hourly employee; foreman in a yarding operation, responsible for operation layouts and rig ups, to include placement of skyline.

Landing: Flat ground where logs are laid after being yarded, and later loaded on transport; a collection point for logs.

Rigging slinger: A member of a yarding crew, whose chief duty is to place chokers or grabs on logs; determines sequence of logs to be yarded, issues directions to crew on logs to be yarded, positioning and securing of chokers, and position of crew during movement of logs.

Shotgun logging method: A cable yarding system used on hillsides, with a carriage mounted on a skyline cable. A logging turn is attached to the carriage, which is then drawn to the landing by a separate skidding cable.

Skyline: Cableway stretched taut between two spar trees and used as a track for a skyline carriage.

Turn: Logs or other material attached by chokers, grapples, or other means to a power source for movement to a landing.

Yarder: System of power-operated winches used to haul logs from a stump to a landing.

Yarding: Movement of logs from the place they are felled to a landing.

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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