Logging processor lost traction and rolled down hillside fatally injuring operator – Idaho (FACE 2020-01)

Processor Equipment, photo courtesy of USDOL
SUMMARY

- On January 25, 2019, around 1 pm, a 32-year-old processor operator was fatally injured when his equipment rolled down a previously logged (clear-cut) hillside.

- The employer was subcontracted to clear-cut over 50 acres of fir, pine, and spruce.

- The location of the incident was on a large tract of privately owned and managed timberland approximately 10 miles out on a logging road.
SUMMARY

• The road was a single lane logging road that varied between 13 to 16 ft in width.

• The road grade varied but was approximately 4 percent with an approximate 9 percent outward slope at the site of the rollover incident.

• The surrounding hillside terrain had an approximate 20 percent slope.

• At the time of the incident, the logging road was covered with 2 inches of ice and lined with snow on both sides.

Road percent grade measured with an inclinometer, photo courtesy of USDOL

Road draw and grouser groves, photo courtesy of USDOL
SUMMARY

- There were six employees onsite at a cable logging operation.
- The processor operator was driving the equipment from a spur road to a main logging road to harvest some fringe trees on the lower section of road, then the equipment was to be loaded on a lowboy and transported to a new timber harvesting location.
- As the processor operator approached a narrow inside corner in the road near a log deck (a stack of logs near a roadway), the tracks on the equipment slipped laterally on the outsloped road.
SUMMARY

• The equipment slid off the road and temporarily stopped on logs that had been decked.

• The processor operator swung the boom and placed the processor head on the uphill side of the road attempting to transfer the center of gravity.

• The yarder operator saw the equipment slipping down the slope, communicated over the radio for the processor operator to “get the boom down and get out of there!”

• While the processor operator was attempting to exit the cab, the equipment tumbled down the hillside, shearing the operator cab off the equipment and fatally crushing the processor operator before coming to a rest in the creek near the road below.

• EMS arrived on scene and declared the processor operator deceased.
SUMMARY

Clear-cut hillside showing dirt pathway from rolling equipment, photo courtesy of USDOL
CONTRIBUTING FACTORS

- Road design and maintenance
- Road hazard assessment
- Operator training
- Position of equipment and boom during travel

- Operator protection design did not include Falling Object Protection Structure (FOPS), Tip Over Protection Structures (TOPS) and Roll Over Protection Structures (ROPS)
- Processing head attachment stowing or stabilization
RECOMMENDATIONS

• Road designers should limit outsloping on forest roads with potential winter travel.

• Employers should conduct a hazard assessment when working with forestry equipment in areas of steep terrain and provide worker training on hazard recognition as part of a comprehensive and site-specific safety plan.

• Employers should develop, implement, and train operators on strategies for traveling forestry equipment over forest roads.
RECOMMENDATIONS

• Employers should select forestry equipment equipped with falling object protection structure (FOPS) or falling object guard (FOG) and rollover protective structures (ROPS).

• Employers should consider participating in professional safety organizations to strengthen safety and health programs.

• Employers should develop a comprehensive health and safety program for manual and mechanical logging operations.
RECOMMENDATIONS

• Manufacturers should design stowing or sway control features for forestry attachments such as dangle head processors.

• Manufacturers should provide engineer designed ice bits for forestry equipment operating during winter snow and ice conditions to reduce lateral slipping.
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Download the full report: https://www.cdc.gov/niosh face/pdfs/full202001.pdf
CONTACT US

Fatality Assessment and Control Evaluation
Surveillance and Field Investigations Branch
Division of Safety Research, NIOSH
1000 Frederick Lane, M/S 1808
Morgantown, West Virginia 26505-2888
FACE Web Site: https://www.cdc.gov/niosh/face/

Follow FACE on Twitter @NIOSHFACE