

Forest Crew Worker Electrocuted While Trying to Cut Tree Fallen on High-Voltage Power Line



SUMMARY

In October 2012, a 22-year-old worker on an inmate forest work crew was electrocuted while using a chainsaw to cut into a tree that had fallen onto an 115,000-volt power transmission line.

The inmate work crew was employed by a state agency to conduct pre-commercial forest thinning on a plot of state owned land. The trees were to be cut manually using powered chain saws. On the day of the incident, the crew's morning meeting covered details of the work area and assignments, and some site specific safety information, but no mention was made of the power transmission lines running through the unit, or the risks and hazards associated with falling trees around overhead power lines.

The victim's work partner, who had been cutting up the trees that the victim fell, reported that he turned and saw that a large tree had fallen onto the nearest power line, and the victim was using his chainsaw to cut the tree while it was still leaning on the line. The victim was shaking and his feet appeared to be smoking.

Investigators found that the tree the victim felled was larger than the maximum size that the crew was allowed to cut, and it was outside of the work boundary. The direction of the face cut the victim had placed in the trunk led the tree to fall in a straight line toward the power lines, and no hinge wood had been left during cutting to guide the tree's fall. The victim had attempted to cut the tree from the power line with his chainsaw. He made one undercut successfully near the base of the tree, but, when that did not release the tree from the line, he attempted another cut further up the trunk and was electrocuted.



Charred tree with chainsaw cuts at site where victim was electrocuted

RECOMMENDATIONS

To prevent similar incidents, Washington State Fatality Assessment and Control Evaluation (FACE) recommends that employers engaged in similar work:

- **Develop, implement, and enforce a comprehensive written safety program that is tailored to the job, and includes safety information about all tasks employees will perform. Ensure that all forestry crew workers who will fall trees as part of their job, including temporary or seasonal workers, have successfully passed comprehensive job safety training before beginning work.**
- **Perform a thorough job hazard analysis (JHA) before work begins at each new worksite.**
- **Ensure that any worker who will be engaged in tree falling is thoroughly trained in directional cutting techniques.**
- **Ensure that there is competent supervision of workers during day-to-day operations.**

The full version of this investigation report, along with the detailed recommendations and discussions section, can be found at: www.lni.wa.gov/Safety/Research/FACE/Files/ForestWorkerElectrocution.pdf

Or go to www.lni.wa.gov/SHARP. Choose the **Publications** tab on the left side of the page and enter **52-38-2016** into the search box.

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The Washington State Fatality Assessment and Control (WA FACE) program is one of many workplace health and safety programs administered by the Washington State Department of Labor & Industries' Safety & Health & Research for Prevention (SHARP) program. It is a research program designed to identify and study fatal occupational injuries. Under a cooperative agreement with the National Institute for Occupational Safety and Health (NIOSH grant # 2U60OH008487-11), WA FACE collects information on occupational fatalities in WA State and targets specific types of fatalities for evaluation. More information about WA FACE can be found at www.lni.wa.gov/Safety/Research/FACE.