

Case 163. 22-year-old tree trimmer electrocuted while trimming branches from a pine tree that was overgrown into a 4,800-volt power line.

A 22-year-old company-certified line clearance tree trimmer was electrocuted while trimming branches from a pine tree that was overgrown into a 4,800-volt power line. He was a member of a 4-person crew contracted to clear and remove about 20 large pine trees located near a power line in the backyard of a residential property. The day before cutting began, the crew arrived at the site to review the area. A job briefing was held to establish crewmember responsibilities. The crew then began to top, trim and fell the trees. Crewmembers were aware of the wires making contact with the trees/tree branches. The homeowner informed the crew that in winter he could see sparks jumping from the wires to the snow on the tree branches. The crew did not make any attempt to contact the power company to de-energize the power lines. They returned to the site the following morning after it had rained during the night and early morning hours. They continued the work of removing the trees. Around 10:00 a.m. they took a break sitting near one of the work trucks. The homeowner who had been watching them joined in their conversation and discussed the work being performed. The homeowner stated that the crewmembers told him they were getting “tingles” (of electricity) from the wet trees and branches as they contacted and climbed them. The crew also indicated to the homeowner that this was not unusual for them to encounter. The crew made no attempt to contact the power company to de-energize the lines on this second day of work. After finishing their break, the crew returned to work. The decedent and two other crewmembers (Coworker A and Coworker B) each climbed a separate tree to a height of approximately 15-20 feet. The trees were approximately 30 feet apart. Each of these trees had power lines running through their branches. Within the first 15 minutes of work after the break, Coworker A saw that the decedent had made contact with the wires. Yelling down for help, he obtained the homeowner’s attention. The homeowner yelled to the crewmember positioned near the work truck for help. The homeowner called 911. Initially, the first plan of action was to climb up the tree to remove him, but recognizing the power lines were still be energized, the coworkers chose another course of action. One of the coworkers requested pruners to cut the wires. A wooden pair of pruners was taken from the truck and brought part way over to the decedent’s location. These pruners were returned to the truck for a pair of fiberglass pruners. While this was happening, Coworker B cut down the tree in which he had been working so it would fall on and break the wires. The tree fell on the wires but did not break them. With the decedent still tied off in the tree, the crew cut the tree and it fell on and broke the power lines. EMS arrived and the decedent’s coworkers and EMS personnel removed the decedent from his harness and away from the tree. CPR was performed and he was transported to a local hospital and declared dead. There was an 8-inch burn mark on the tree and there was a burn mark on a branch.

MIOSHA General Industry Safety Division issued the following alleged Serious citations.

SERIOUS:

PERSONAL PROTECTIVE EQUIPMENT, PART 33 RULE 3310(1).

Ensure that an employer shall provide to an employee at no expense to the employee, the initial issue of the type of personal protective equipment which is suitable for the work to be performed as required by this standard or any other general industry safety standard, unless specifically indicated otherwise in this standard or any other general industry safety standard. The employer shall also provide replacement equipment if necessary due to wear and tear on the previous equipment or if the equipment is lost due to the work environment, unless covered by a collective bargaining agreement.

The employer requires the use of gloves per their Personal Protective Equipment assessment document, but is not providing them at no cost to employees- job site.

SERIOUS:

TREE TRIMMING AND REMOVAL, PART 53, RULE 5311(A).

An employer shall conduct a job briefing before any tree job involving unusual hazards is begun.

Inadequate job briefing, trained line clearance tree trimmers observed energized power lines touching the trees/branches about 20-feet above the ground level and did not take appropriate safeguards to have the lines de-energized before they climb them.

SERIOUS

TREE TRIMMING AND REMOVAL, PART 53, RULE 5311(b).

Prohibit use of unsafe tool or equipment.

No certification available to verify insulating ability of fiberglass handled poly rope activated pruning mechanism, hand held tree pruners.

SERIOUS

TREE TRIMMING AND REMOVAL, PART 53, RULE 5321(5).

Require qualified line clearance tree trimmer to maintain (Table 2) distances from energized conductor (they may remove hanging branches with insulated tools when voltage is below 10 KV).

Line clearance tree trimmers made direct contact with a 4800-volt power line resulting in a fatality. Three employees all trained in line clearance were cutting down twenty large, tall pine trees for power company lines. All were climbing trees with provided ropes and harness. All per interviews were receiving tingles from the trees. Trees were wet from overnight and morning rains. All were working within 1-foot of the energized power lines.