

Struck by a tree--Insp # 1716116 Moorhead Contracting Inc.

A 33 year old male was manually felling a tree with a chainsaw when the tree fell on top of him, causing fatal injuries to his torso. The victim had been manually felling trees on the south-east side of the Memphis International Airport as part of the construction project that will create a clear line-of-sight for incoming aircraft and the control tower. On this particular morning, the victim had cut approximately 9 other small trees before the incident occurred.

The contractor was responsible for manually felling trees throughout the wetland portions of the 300-acre project. According to the employer, this would end up being approximately 50-80 acres of the project. The general contractor was utilizing mechanical felling for the remainder of the 300-acres. The contractor had been onsite since the beginning of the project approximately 6 months prior to the incident. They had only been in this area of the project for about 3 weeks. The purpose of the project was to clear timber from a 300-acre area at the south end of the Memphis International Airport runway to allow a clear line-of-sight for both incoming planes and the control tower. Part of this 300-acre project falls on protected wetland area. In the wetland area, it is not possible to use mechanical felling equipment to cut down the trees. The victim was manually felling trees in this area to protect the wetland area. One other employee was at a different area of the 300-acre project.

During the inspection of the site, the CSHO viewed the cuts made by the victim on the tree that ultimately fell on him, as well as the other trees cut the same day. The victim had cut 9 trees and had moved over to cut the 10th and final tree in the section, all of which appeared to have the same cut pattern as the one that caused the accident. The hinge wood left on the final tree indicated that the face cut and back cut were made very close together, not leaving enough wood attached at the base of the tree to guide the fall. The hinge wood also indicated that it had been cut at an angle creating an uneven cut along the length of the hinge.

Per interviews, the victim arrived at the worksite in the company truck wearing only steel-toed shoes and protective glasses as PPE. The victim walked over to an area off of the east side of the gravel road to begin clearing a small area of trees while another employee was sitting on the excavator on the roadway waiting to move the felled trees with the excavator. When trees were ready to be moved, the victim would walk back out to the roadway and motion for the employee to pull forward. The employee saw one of the trees fall, but never saw the victim walk out. He stated that he heard the chainsaw idling and knew something was wrong. The employee proceeded to move the excavator up the gravel road to see what was going on and he could see the felled tree with the victim underneath.

The victim had been employed for approximately 15 yrs and per the employer had been through many safety training classes while employed with Moorhead Contracting Inc as well as several years of logging training with a former employer.

Based on the fact that the victim had cut 9 trees and had moved over to cut the 10th and final tree in the section, all of which appeared to have the same cut pattern as the one that caused the accident, including inadequate hinge wood, and improperly positioned face and back cuts; it is believed that the victim's training was inadequate. Additionally, the employer was not able to provide any training records for review.

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Inadequate training in manual tree felling operations may have led to the improper back cut and face cut being made, which caused the tree to fall in the wrong direction.

**Citation(s) as Originally Issued**

A complete inspection was conducted at the accident scene. Some of the items cited may not directly relate to the fatality.

**Citation 1 Item 1**                      **Type of Violation:    Serious**                      **\$350**

**29 CFR 1910.266(d)(1)(iv):** The employer did not provide, at no cost to the employee, and did not assure that each employee who operated a chain saw wore leg protection constructed with cut-resistant material, such as ballistic nylon.

In that the use of leg protection was not enforced by the employer when an employee was using a chainsaw to manually fell trees.

**Citation 1 Item 2**                      **Type of Violation:    Serious**                      **\$300**

**29 CFR 1910.266(d)(1)(vi):**The employer did not ensure that employees were wearing head protection in an area where there is potential for head injury from falling or flying objects wears head protection meeting the requirements of subpart I of Part 1910.

In that the use of head protection was not enforced by the employer when an employee was using a chainsaw to manually fell trees.

**Citation 1 Item 3**                      **Type of Violation:    Serious**                      **\$300**

**29 CFR 1910.266(d)(1)(vii)(B):** Face protection meeting the requirements of Subpart I of 1910 where there is potential for facial injury were not provided and worn by employees performing chainsaw operations.

In that the employee working at the site was not wearing the required face protection while manually felling trees at the site.

**Citation 1 Item 4**                      **Type of Violation:    Serious**                      **\$350**

**29 CFR 1910.266(d)(2)(ii):**Each first aid kit did not contain the items listed in Appendix A at all times:

In that the First Aid kit at the worksite did not include all required items.

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**Citation 1 Item 5a**                      **Type of Violation:    Serious**                      **\$4000**

**29 CFR 1910.266(h)(2)(vi):**The backcut did not leave sufficient hinge wood to hold the tree to the stump during most of its fall so that the hinge is able to guide the tree's fall in the intended direction.

In that sufficient hinge wood had not been left by the backcut made by the chainsaw operator to help guide the tree's fall in the intended direction.

**Citation 1 Item 5b**                      **Type of Violation:    Serious**                      **\$0**

**29 CFR 1910.266(h)(2)(vii):**The backcut was not made above the level of the horizontal facecut in order to provide an adequate platform to prevent kickback.

In that the backcut of a tree at the site was at the same level as the horizontal facecut preventing an adequate platform for kickback when the tree was cut.

**Citation 1 Item 6**                      **Type of Violation:    Serious**                      **\$5400**

**29 CFR 1910.266(i)(3)(ii):** Training on the safe use, operation and maintenance of tools, machines and vehicles the employee uses or operates, including emphasis on understanding and following the manufacturer's operating and maintenance instructions, warnings and precautions had not been adequately provided and/or utilized.

In that an employee had not been provided effective training, by the employer, on the proper method of manually felling trees.

**Citation 1 Item 7**                      **Type of Violation:    Serious**                      **\$350**

**29 CFR 1910.266(i)(7)(i):** The employer did not assure that each employee received First-Aid/CPR training meeting at least the requirements specified in appendix B.

In that not all employees at the worksite had been trained in First Aid and CPR.

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