

Case 172. 42-year-old male painter was electrocuted when the aluminum extension ladder that he and the company owner were repositioning contacted an overhead primary 13,200-volt electrical power line.

42-year-old male painter was electrocuted when the aluminum extension ladder that he and the company owner were repositioning contacted an overhead primary 13,200-volt electrical power line. The decedent and the owner had been painting the trim on a two-story residential home. The aluminum extension ladder was extended 20 to 24 feet. The electrical lines were 20 feet 3 inches above the landscaped grade and located approximately 18 feet away from the ladder base. The ladder was being repositioned for a coworker who had just arrived at the jobsite. To reposition the ladder, the company owner and decedent stabilized the ladder and then stood the ladder up to a vertical position. When the company owner noticed that the ladder was too close to the wires, he shouted to the decedent to watch it. The ladder touched the 13,200-volt line and both workers were held for a few seconds. The electrical force then threw both men 10 feet to each side of the ladder. The base of the ladder melted which caused the ladder to disengage from the primary wire and come to rest on a cable wire. The company owner started convulsing. The decedent crawled a few feet away from the ladder and then became unconscious after the electric shock. The coworker for whom the ladder was being repositioned, was working on the lower roof area and witnessed the incident. This coworker called out to the other coworker, who was the owner's daughter, to call 911. The daughter attempted to help her father and felt the electrical current as she approached him. Both victims were taken to the hospital where the decedent died. The decedent's toxicology blood test results indicated the presence of cocaine and benzoylecgonine.

MIOSHA Construction Safety and Health Division issued the following citations to the employer at the conclusion of their investigation:

SERIOUS:

FIXED AND PORTABLE LADDERS, PART 11, RULE 1124(7).

A ladder shall not be used or moved unless a minimum of 20 feet is maintained between power transmission or distribution lines.

Employees were handling, erecting, and relocating a 24-foot aluminum extension ladder for the purposes of painting the exterior north side of the house. The ladder's base was set 17'6" to the south of the 13.2kV primary electrical transmission lines located on the easement to the north of the house. The transmission lines are 20'3" feet above the landscaped grade. The diagonal distance from the base of the ladder to the south transmission wire is 26'9". The top of the ladder is within 20 feet of the energized transmission conductor.

OTHER-THAN-SERIOUS:

GENERAL RULES, PART 1, RULE 114(1).

An employer shall develop, maintain, and coordinate with employees an accident prevention program a copy of which shall be available at the worksite.

No written accident prevention program developed, maintained and coordinated with employees painting the exterior of the house.

OTHER-THAN-SERIOUS:

FIXED AND PORTABLE LADDERS- PART 11, RULE 1112(1).

The employer shall provide training program for each employee who uses a ladder. The program shall enable each employee to recognize hazards related to the ladder and shall train each employee in the procedures to be followed to minimize these hazards.

Ladder training that has been provided to employees has not enabled the employees to identify and eliminate hazards associated with their use, particularly hazards associated with working in proximity to energized electrical lines.