

Case 200. 57-year-old supervisor/foreman/lineman for an electric cooperative died when he contacted a 7,200-volt live electric line while attempting to change a fuse on a power pole.

A 57-year-old male supervisor/foreman/lineman for an electric cooperative died when he contacted a 7,200-volt live electric line while attempting to change a fuse on a power pole. He had been assigned to repair a non-responsive service meter at a seasonal residence. He found that a fuse in a nearby energized can arrester that was fastened to the side of the transformer on a pole had blown. It appears that he first attempted to use an “extendo” hot stick to initiate repairs from the ground, but could not dislodge the fuse from its mount. He put on his climbing spurs and pole climbing belt, but did not take a pair of lineman’s gloves. In his back pant pocket was a 2mm amp fuse. He proceeded to climb up the pole to approximately 40 feet. It appears he contacted the energized can arrester with both palms of his hands. Marks on the pole made by his climbing gear indicated that he had climbed to within approximately 5 feet of the fuse box. It appears he slid down the pole approximately 25 feet after contacting the electric line. The fuse was unchanged in the transformer. When he did not return to the cooperative office, his coworkers searched for him. They found him approximately 5 hours after the end of his shift at the bottom of the pole on the ground, in a seated position, slumped to the right with all of his climbing harness equipment in place and still attached to the pole. His hot stick was hanging on/over a wire on the pole and his approved high voltage gloves were found in the company-issued truck.

At the conclusion of its investigation MIOSHA General Industry Safety and Health Division issued the following Serious citations:

SERIOUS:

GENERAL RULES, PART 1, RULE 114(2)(c).

An accident prevention program shall, as a minimum, provide for the following: Inspections of the construction site, tools, materials, and equipment to assure that unsafe conditions which could create a hazard are eliminated.

There were no on-site safety inspections being performed while the employees were performing switch upgrades on the power line. The employee, not wearing his high voltage gloves, was removing bolts from the energized can arrester that was fastened to the side of the transformer on pole when he was electrocuted.

SERIOUS:

POWER TRANSMISSION AND DISTRIBUTION, PART 16, RULE 1627(1)(a).

An employee shall not be permitted to approach or take any conductive object with out an approved insulating handle closer to exposed energized parts than shown in table 1 unless the following is complied with:

- i. The employee is insulated or guarded from the energized part. Gloves or gloves with sleeves rated for the voltage involved, which are provided for pursuant to rules 617 and 641 of construction safety standard, Part 6 Personal Protective Equipment, being R408.41617 and R408.40641 of the

Michigan Administrative Code, shall be considered insulation of the employee from the energized part. The work method on parts energized above 5,000 volts phase to ground shall be with rubber gloves and sleeve out of an insulated bucket, by the use of hot line tools, or with rubber gloves and sleeves in conjunction with a factory-made and approved insulated platform that provides a method of belting off other than to the pole or structure. This rule does not apply to the bare-hand technique.

- ii. The energized part is insulated or guarded from the employee and any other conductive object at a different potential.
- iii. The employee is isolated, insulated or guarded from any other conductive object, as during live-line, bare-hand work.

The employee, not wearing his high voltage gloves, was removing bolts from the 7200-volt energized can arrester that was fastened to the side of the transformer on pole when he was electrocuted.