

FATALGRAM 11-07

Alaska Department of Labor and Workforce Development
Division of Labor and Safety Standards
Occupational Safety and Health



Date of incident: June 20, 2011

Industry: Construction

Location: Credit Union Drive, Anchorage Alaska 99503

Summary: On June 20, 2011, an employee was electrocuted while beginning to remove ceiling lights in an office area during a remodeling project of a building.

Description of Accident: The victim was a 26 year old, apprentice electrician on their first day at this job. They were working from the third rung of a Werner eight foot step ladder starting to remove the ceiling lighting from a first floor office of the building when they climbed from the ladder to turn off the power at the wall switch. (The investigation revealed that the circuit breaker was not turned off at the time of the accident). The victim climbed back up the ladder and used a Klein non-contact voltage tester NCVT-1 to check for voltage in the junction box and immediate area. A co-worker stated that the tester did not indicate any voltage at that time. The victim started to remove the wire nuts on the junction box. The electrical contractor conducted their own investigation and concluded that the victim then disconnected the neutral wire and was electrocuted between the load side of the neutral conductor and either the grounded conduit junction box, or the conduit to the load side of the neutral conductor while separating out the neutral wire.

No one witnessed the accident, although there were four employees working in the general vicinity. Once the victim yelled, her co-workers responded and immediately began CPR. The victim was transported to Providence Hospital but never regained consciousness after the accident.

Alaska Occupational Safety and Health investigated the accident. Based on the investigation, the victim was electrocuted while working on a shared neutral that had voltage back feed even though the wall switch controlling the circuit breaker had been turned off. The victim used a Klein non-contact voltage tester NCVT-1. The voltage tester was sent to the National OSHA Test Lab in Salt Lake City, Utah and found to be functioning properly. This indicates that the tester was not used properly to detect the back feed voltage. The employer has the responsibility to ensure electricians, especially first year apprentices, are fully trained in the hazards associated with the work they are performing and how to determine the hazards and the preventative measures to be taken to avoid exposure and injury. This accident underscores the requirement that electrical apprentices perform electrical work under the direct supervision of a licensed journey-level electrician.

(continued)

Accident Prevention Recommendations:

- Ensure that all employees are adequately trained and supervised for each assigned job. The training should include all possible electrical hazard scenarios when employee is working near potentially energized electrical systems.
- Ensure registered apprentices or trainees are under the direct supervision of a competent journey-level worker whenever hazardous work is performed.
- Ensure that each employee has been trained to recognize and avoid unsafe conditions.
- Ensure that employees are trained in all OSHA regulations pertaining to their work.
- Ensure that all electrical circuits are turned off at the breaker and properly tested for potential energy before work begins on any exposed electrical wiring.
- Ensure that no employee performs work on a circuit that has potential voltage without posting warning signs, advising employees of the hazards involved and providing adequate protective measures.