

Electric Current Safety



Oklahoma Occupational Safety and Health Surveillance Program

Between 2000 and 2009, 62 workers in Oklahoma died on the job as a result of exposure to electric transmission lines or other electric current. In 2006, workers' compensation paid for approximately 20 hospital stays for electric current exposure, with median charges of \$20,178. Many workers may be unaware of the potential electrical hazards present in their work areas or may believe that only certain occupations (e.g., electric power workers/linemen) are at risk. In fact, electrical energy surrounds us and can cause serious and fatal shocks, burns, falls, and electrocutions to workers of all industries.

- A self-employed landscaper was trimming tree limbs from the bucket of a cherry picker when his arm came in contact with a power line. The worker was electrocuted with 14,400 volts and died at the scene. A coworker, who tried to use secondary controls to lower the bucket, was shocked and thrown into a rock wall. The coworker was hospitalized in a burn center for his injuries.
- An experienced high voltage lineman was preparing to put up a guy wire. He was in an aerial bucket without protective gear, despite an earlier safety briefing. The worker was exposed to 7,600 volts and died one hour later at the hospital.

- A golf course owner was installing an electric valve on an irrigation system, but failed to shut off the main breaker box. The ground and wires leading to the valve were very wet. When he crimped two wires to make a connection, he was fatally shocked.
- Two workers were delivering a large diesel fuel tank to a construction site. One worker operated the truck's crane, while the second worker released the tank's tie-downs. The truck was parked under some high voltage power lines. When the boom came in contact with a 13,000-volt line, a fire started and the second worker, who was touching the truck, was electrocuted.
- A food service worker was cleaning the fryer on a mobile food court trailer when he was shocked. He was found unresponsive outside the trailer, which had multiple code violations.

Contact Information:
Oklahoma State Department of Health Injury Prevention Service
1000 NE 10th Street
Oklahoma City, OK 73117
405-271-3430 or 1-800-522-0204

SAFETY RECOMMENDATIONS

- *Locate all power lines in the work area prior to working, post warning signs, and communicate hazards with all other workers.*
- *Keep all people and objects at least 10 feet away from energized lines; assume lines are energized unless known otherwise.*
- *De-energize and ground lines if it is necessary to be in close proximity; institute other protective measures, such as guarding and insulating, as appropriate.*
- *If work requires digging, ensure all buried lines are identified and marked beforehand.*
- *Choose to work with nonconductive ladders and tools.*
- *Use equipment only as prescribed and certified by the manufacturer (e.g., do not use cords, tools, or machinery with worn insulation or exposed wires, or indoor-only equipment outdoors).*
- *Consult and implement published best practices and OSHA standards.*

The Oklahoma Occupational Safety and Health Surveillance Program collects statewide information on 19 occupational health conditions in order to develop and inform occupational injury and illness prevention programs. Oklahoma's occupational surveillance system is a research program of the National Institute for Occupational Safety and Health.

For detailed reports, please go to the Occupational Injuries section at:
<http://ips.health.ok.gov>