

## **18. Electrocution**

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A **36-year-old** journeyman lineman was killed when he made contact with a 7.2 kV cutoff switch while cutting a primary wire on an electric utility pole. Strong storms with high winds resulted in the destruction of two spans of utility poles and power lines. A crew of four men was assigned to complete the repair work the day after the storms hit. The crew discussed the job requirements before beginning work and decided to treat the lines as de-energized while work was being conducted because the bottom of the cut-off switch was de-energized, resulting in the primary and neutral wires on the load side being also de-energized. However, the top of the cut off switch, also called the tap, was still energized because it connected to the power line on the distribution side of the utility pole which was still energized and was not shut down or locked out. The victim was assigned to cut down the primary and neutral wires so they could replace the utility pole. The victim ascended the load side of the utility pole in the bucket of a boom truck. He removed the cotter pin connecting the neutral wire to the pole and dropped the wire. He then ascended four feet to the primary wire and positioned himself within two feet of the cut-off switch. The cut-off switch was located 18 inches from the primary wire. As he maneuvered the bucket to reach the cotter pin for the primary wire, his left shoulder came into contact with the energized tap (top of the cut-off box) and his right chest area touched the primary wire. Thus he completed the circuit and 7.2 kV of electricity entered his body at his shoulder and exited on his right side and into the primary wire. The victim collapsed into the bucket, was lowered to the ground by a co-worker, and a fire extinguisher was used to extinguish the flames. Emergency services who were called to the scene observed smoke from the scene three miles away. The victim was transported to the hospital, but did not survive.

### **Citations as Originally Issued**

A complete inspection was conducted of the worksite. Thus, some of the items cited may not directly relate to the fatality

#### **Citation 1**

Item 1 1910.67(c)(2)(v)	A body belt was not worn with a lanyard attached to the boom or basket when working from an aerial lift.
Item 2 1910.269(a)(2)(iii)	The employer did not determine, through regular supervision and through inspections conducted on at least an annual basis that each employee was complying with the safety related work practices required.
Item 3 1910.269(l)(1)	Electric lines and equipment were treated as de-energized without first following the provisions required.
Item 4 1910.269(l)(3)	If the employee was to be insulated from energized parts by the use of insulating gloves, as required, insulating sleeves were not used.

#### **Citation 2**

Item 1a 1910.269(l)(2)	Employees did not maintain minimum approach distances set forth in Tables R-6 through R-10 when working on or near energized parts.
Item 1b 1910.269(l)(4)	The employer did not ensure that each employee, to the extent that other safety related conditions at the worksite permit, worked in a position from which a slip or shock would not bring the employee's body into contact with exposed, uninsulated parts energized at a potential different from the employee.

Item 2 1910.269(l)(6)(iii)

The employer did not ensure that each employee who was exposed to the hazards of flames or electric arcs did not wear clothing that, when exposed to flames or electric arcs, could increase the extent of injury that would be sustained by the employee.

