



SAFETY ALERT



ELECTRICAL ACCIDENTS

The mining industry has experienced three electrical fatalities since August 7, 2019. The first fatal accident occurred when a 42-year-old electrician with 15 years of mining experience contacted an energized component of a 4,160 VAC electrical circuit. The victim was in the preparation plant's Motor Control Center (MCC) adjusting the linkage between the disconnect lever and the internal components of the 4,160 VAC panel that supplied power to the plant feed belt motors. The second fatal occurred on August 15, 2019, when a 44-year-old contract electrician, with 10 weeks of mining experience, was working inside a fire suppression system's electrical panel and contacted an energized 120 VAC conductor. The most recent fatal accident occurred on September 17, 2019. The preliminary investigation indicates that a miner was electrocuted while troubleshooting the electrical circuit for a scrubber on a 995 VAC continuous mining machine.



Best Practices

- Lock-out and tag-out the circuit before working on electrical equipment with your lock and tag.
- Never get in a hurry! Never work alone! Always think, plan, and communicate your intentions to others in the area to ensure the task can be completed without creating hazards.
- Train all miners including electricians on equipment they will work on or troubleshoot. It is important for miners to know how the electrical system and equipment in the mine is energized and where disconnecting devices are located.
- Always identify and control all hazardous energy sources before conducting any task and follow safe work procedures.
- Never troubleshoot energized high voltage circuits over 1,000 V. Always troubleshoot without power first. When it is necessary to troubleshoot an energized circuit, employ safeguarding measures to prevent hazards.
- After identifying the problem and entering an electrical enclosure or before performing electrical work make sure to: Locate the circuit breaker or load break switch and open it to de-energize the incoming power cable(s) or conductors. Locate the visual disconnect and open it to provide evidence that incoming power has been de-energized. Lock-out and tag-out the visual disconnect. Ground the de-energized conductors.
- Use properly rated personal protective equipment (PPE) when troubleshooting or testing energized circuits. This includes electrically rated gloves, meters with proper settings, non-contact voltage testers, insulated blankets or mats, and polycarbonate barriers to eliminate personnel exposure to hazardous energy during troubleshooting.