



U.S. Department of Labor

Mine Safety and Health Administration

Protecting Miners' Safety and Health Since 1978



ELECTRICAL SAFETY ALERT

Several electrical incidents have recently been reported at underground coal mines that resulted in miners being transported to the hospital. One incident occurred when a miner received flash burns to his eyes when he was working near a 480 VAC scoop charger circuit breaker. Another miner was shocked while repositioning a 575 VAC permissible water pump when he grabbed the pump cable. A mine foreman was shocked when he attempted to pull a roof bolter trailing cable out from under a rock fall. A fourth miner was shocked when an electrician contacted an energized component in the control panel of a 995 VAC continuous mining machine.



Best Practices

- Do not perform any electrical work until the circuit is deenergized, locked, and tagged out. **REMEMBER**, electrical work is installing or maintaining electrical equipment or conductors.
- Be knowledgeable of the hazards of electricity and **NEVER** touch any ungrounded electrical component until you are sure it is deenergized.
- Identify all hazards then develop and follow a safe plan to perform work or troubleshoot to ensure the safety of all miners. Always deenergize equipment except when necessary for trouble shooting or testing.
- Always handle deenergized cable instead of energized cable, or wear properly rated and well maintained electrical gloves when handling energized cables.
- Protect electrical cables from damage by mobile equipment and falling roof. When cable damage is suspected, **IMMEDIATELY** notify a qualified electrician so a potentially dangerous condition can be corrected.
- Install sensitive ground fault relays with instantaneous trip setting of 125 mA or less on all face equipment. Use trailing cables with a grounded metallic shield.
- Wear properly rated PPE to protect against Electrical Shock, Arc Blast, and Arc Flash by following NFPA 70E Standard for Electrical Safety in the Workplace.