

METAL / NONMETAL

Near Miss Accident

Underground Zinc Mine – A miner received an electrical shock when he contacted an exposed circuit breaker handle mounting screw (yellow box). When the miner operated the switch, his hand came into contact with the mounting screw, which was in direct contact with one phase of the 480 volt circuit. When the circuit breaker was disassembled, it was discovered that one of three cover shields had broken, leaving the handle mounting screw exposed.



BEST PRACTICES

- Before operating a circuit breaker, a visual inspection of the breaker and associated equipment must be done. If any part of this equipment looks out of place, stop and contact a qualified electrician.
- Any exposed metal should be considered energized unless verified that it is not. Do not touch exposed metal on or around a molded case circuit breaker unless using proper PPE for the application.
- Ensure handle cover plates/slides are in place before electrical equipment is put into service. These plates should slide back and forth smoothly with the handle as it proceeds through the different handle positions (Off, Tripped, On).
- Conduct frequent inspections on heavy use electrical equipment to ensure that deficiencies are corrected before they cause an accident.
- Set up and follow a routine maintenance program to replace worn components.
- If a circuit breaker is determined to need service, it is highly recommended that it be sent back to the manufacturer in order to meet factory specifications.