MNM Fatal 2016-04

Electrical
April 4, 2016 (Arizona)
Copper Ore Mine
Hydromet EW Operator
25 years old
4 years of experience



On April 9, 2016, Bryan Ortiz, Hydromet Electrowinning Operator I, age 25, was seriously injured when he was electrocuted by an energized flange on the electrolyte return line. Ortiz was instructed to prime a pump in the area and was found incapacitated kneeling in electrolyte solution with his head contacting an energized flange. Ortiz died of his injuries on April 10, 2016.

The accident occurred due to management's failure to insulate or guard energized flanges on the electrolyte return piping and failure to provide adequate personal protective equipment (PPE) for the electrical hazards that existed.



Best Practices

- Establish and discuss safe work procedures that include hazard analysis before beginning work. Identify and control all hazards associated with the work to be performed and use methods to properly protect persons.
- Train all persons to understand the hazards associated with working near energized electrical conductors.
- Use properly rated Personal Protective Equipment (PPE) including Arc Flash Protection such as a hood, gloves, shirt, and pants.
- Ensure that all electrical systems are safely designed and properly installed and that all metal enclosing or encasing electrical circuits are grounded or provided with equivalent protection.
- Provide equipment grounding conductors, with a sufficiently low impedance to limit the voltage to ground, for metal enclosures. Use a properly rated meter to identify any stray electrical currents which may be present.
- Lock Out, Tag Out, and Try: Place your lock and tag on the disconnecting device and test for power.