

Arc Flash Hazard Alert



All energized electrical equipment carry the danger of potential arc flash at any moment.

- Each year, more than 2,000 people are admitted to burn centers with severe arc flash burns.
- Arc flashes can reach temperatures of 35,000° F and are fatal at distances up to 10 feet.
- These tremendous temperatures can vaporize metal, resulting in pressure waves that can rupture eardrums and collapse a person's lungs.
- Shrapnel expelled from an arc flash can exceed speeds of 700 mph, fast enough to completely penetrate the human body.



Arc Flash Accident Prevention Best Practices

The following precautions should be taken before performing electrical work to reduce the probability of an arc flash exposure:

- Label visual disconnecting devices to identify the circuit they protect.
- Place Warning Labels on the terminal covers of bottom feed circuit breakers stating that the “Bottom terminal lugs remain energized when the circuit breaker is open.”
- Determine all possible sources of electrical supply to the specific equipment. Use single line and schematic drawings to aid in locating any possible secondary sources such as backfeeds, stored energy, or induced voltages.
- ALWAYS wear appropriate personal protective equipment (PPE) as defined in NFPA 70E (Standard for Electrical Safety in the workplace) when doing any electrical work.
- Properly interrupt any load currents, open disconnecting devices for each source.
- Visually verify that all blades of the disconnecting devices are fully open when possible.
- Apply lockout / tagout devices in accordance with established policy, your lock is your PERSONAL key to staying ALIVE! Always use your own lock. Never have someone else do it for you.
- Always TEST to ensure there is no voltage inside an electrical enclosure prior to working on it. Use adequately rated equipment to test each phase conductor phase-to-phase and phase-to-ground. Before and after each test, determine
 - that the voltage detector is operating satisfactorily.
- Ground phase conductors with devices rated for highest available fault duty.
- Consider nearby energized circuits that could possibly contact the de-energized circuit.
- Never assume that you know how a circuit is wired. Ask for help and/or consult a wiring diagram/schematic if you are unsure.
- Avoid standing directly in front the control box when energizing and de-energizing the electrical circuit.

