

Prevent Building Shutdowns and increase safety per NFPA 70E

NFPA 70E states that approximately 30,000 shock accidents occur each year and 2000 people are admitted to hospitals every year due to arc flash burns.

Arc flash temperatures can reach 35,000 degrees which cause instant burns and ignition of clothing.

Arc blast explosive expansion of surrounding air and metal in the arc can create sound levels over 160 dB and expel molten metal



fast enough to penetrate the human body.

Special Personal Protective Equipment (PPE) is available; however, since fire pump controllers are connected to service entrance sources with virtually unlimited energies, PPE is not likely to be available.

With PPE not available, energized work is not permitted. No exceptions! In this situation, the only way for a technician to open the door on the fire pump controller is to have the service to the building shutdown.



There is a better way! **The Master way.**

Design out the hazard or reduce the risk as recommended in section 0.2 in NFPA 70E. We do this with our modifications PPE0 and SIS.

With Master modification PPE0, all of the critical control components are located inside a separate low voltage compartment that can be accessed from the outside without opening the main door. Being less than 50 volts, there is no shock or arc flash hazard to access the low voltage control components.

With Master modification SIS, the Isolating switch is moved into a separate enclosure attached to the side of the fire pump controller. An interlock is provided that requires two hand operation to open or close the isolating switch. Disconnecting the Separate Isolating Switch removes all power to the fire pump controller.

Both these modifications together prevent exposing the technician to lethal energies and molten metal while working on either the low voltage or power components. If energized work is required, the incident energy is significantly reduced to typically less than 1 cal/cm².

