



Are You In Compliance With OSHA 70 E Electrical Requirements?

A complete audit of electrical substations performed by Podojil & Associates safety professionals will assist you in identifying and documenting hazard protection boundaries. Visual signage is developed for each location where hazards are likely to be present.

What is an Arc Flash?

An Arc Flash is a dangerous condition associated with the explosive release of energy caused by an electrical arc due to either a phase to ground or phase to phase fault. This fault can result from many factors, including dropped tools, accidental contact with electrical systems, build up of conductive dust, corrosion, and improper work procedures.

Why do I need to do an Arc Flash Hazard Analysis?

Per NFPA 70E-2000, Part II 2-1.3.3 Flash Hazard Analysis states that a "Flash hazard analysis shall be done before a person approaches any exposed electrical conductor or circuit part that has not been placed in an electrically safe work condition." These Flash Hazard Analysis calculations must be performed to determine the appropriate PPE required for personnel working near any exposed electrical conductor or circuit part. In order to determine the appropriate level of PPE required, the available fault current at the energized electrical equipment being serviced must be known.

A short circuit analysis must be performed to determine available fault currents and arc flash hazards (calculated per IEEE 1584). By doing this analysis, previous studies have shown that minor revisions in breaker settings or fuse changes can lead to major reductions of arc flash hazards.

Why can't I just use the default tables instead of doing a calculated analysis?

By performing a proper arc flash analysis, you can ensure that your workers have the proper protective safety equipment while avoiding the expenses and lost productivity that may result from over or under specification of PPE that can happen when using default tables of NFPA 70E when an analysis is not performed.

Services Provided: Our engineering staff consists of highly experienced and dedicated personnel with 10 to 35 years of industry experience in electrical engineering, power system installation, construction management and start-up. Podojil & Associates can develop:

- Short Circuit Analysis & Load Flow Studies
- Protective Device Coordination Studies
- Arc Flash Hazard Analysis per IEEE1584 standards
- Training for plant engineering maintenance personnel.
- Installation and / or construction management of required distribution system modifications to reduce arc flash hazards.
- Equipment commissioning and system start-up.
- Complete electrical documentation or revision of existing documentation for changes (in AutoCAD format)
- Labeling of all electrical equipment and panels to comply with OSHA & NFPA-70E

All electrical systems must be identified and safety placards must be installed to warn employees of the potential of ARC FLASH. Podojil & Associates placards contain technical information, PPE requirements, lockout protocols, and other safety procedures required to comply with OSHA regulations. Visual instruction, training, and change management are all documented within our written program.



By performing a proper arc flash analysis, you can ensure that your workers have the proper protective safety equipment while avoiding the expenses and lost productivity that will result from over or under specification of PPE that can happen when using default tables of NFPA 70E when an analysis is not performed.

Need more information? Give us a call at (520) 568-5565 and we will have one of our electrical safety professionals talk with you about these OSHA requirements.

Podojil & Associates Inc.
42562 West Hall Drive
Maricopa, Arizona 85239
(520) 568-5565

www.podojilconsulting.com