



ELECTRICAL SAFETY PROFESSIONALS



Major Changes Impacting Your Operations

These are only a few of the changes that will effect your efforts to have a safe environment for anyone exposed to the hazards of electricity.

Training

110.6(A) New additional text.

- Employees shall be trained to select an appropriate voltage-detector and shall demonstrate how to use a device to verify the absence of voltage, including interpreting indications provided by the device. The training shall include information that enables the employee to understand all limitations of each specific voltage-detector that may be used.

110.6(C) Added a new last sentence:

- Training of employees in approved methods of resuscitation, including cardiopulmonary resuscitation, shall be certified by the employer annually.

Preventative Maintenance

205.3 [New]

- General Maintenance Requirements. Over current protective devices shall be maintained in accordance with the manufacturers' instructions or industry consensus standards.
- Failure to properly maintain protective devices can have an adverse effect on the flash hazard analysis incident energy values.



Hazard analysis / Coordination Studies & Single line diagrams

130.3 Arc Flash Hazard Analysis.

An arc flash hazard analysis shall determine the Arc Flash Protection Boundary and the personal protective equipment that people within the Arc Flash Protection Boundary shall use. The arc flash hazard analysis shall be updated when a major modification or renovation takes place.

It shall be reviewed periodically, not to exceed five years, to account for changes in the electrical distribution system that could affect the results of the arc flash hazard analysis.

The arc flash hazard analysis shall take into consideration the design of the over current protective device and its opening time, **including its condition of maintenance.**



Personal Protection Equipment

Table 130.7(C)(10)

- Hearing Protection requirement was added to HRC's 0 and 1.
- Requires the use of leather gloves for Hazard Risk Category 1 tasks.
- Added a requirement to use either face shield or flash hood for hazard risk category 1 with a minimum arc rating of 4.
- The exception permitting flammable clothing to be used up to 2 cal/cm² has been deleted. 130.7(C)(5)

Safety Program


110.7(F) FPN 1:

- The Hazard/risk Evaluation procedure may include indentifying when a second person could be required and the training and equipment that person should have .

Labeling

130.3(C) [New]:

- Equipment Labeling. Equipment shall be field marked with a label containing the available incident energy or required level of PPE.

 WARNING	
Arc Flash and Shock Hazard Appropriate PPE Required	
3' - 4' 4.9 #2	Flash Hazard Boundary cal/cm ² Flash Hazard at 18 Inches PPE Level Cotton underwear plus FR shirt and FR pants
0.48 3' - 6'' 1' - 0'' 0' - 1''	kV Shock Hazard when cover is removed Limited Approach Restricted Approach - Class 00 Voltage Gloves Prohibited Approach - Class 00 Voltage Gloves
Equipment Name: Panel F (Fed by: MDP2-5) ANALYSIS DATE: 03/20/07 STARK SAFETY CONSULTANTS (330) 417-4923	

Our Services

Stark Safety Consultants provides a complete portfolio of Electrical Safety Services. This includes On-site Training, Engineering and Hazard Assessment. Below is a complete listing of services.

- Electrical Hazard Assessments
- Electrical Safety Training
- Electrical Safety Policies
- Arc Flash Hazard Analysis
- Short Circuit and Coordination Studies
- Electrical One Line Diagrams
- Personal Protective Equipment (PPE)
- Preventative Maintenance Planning
- Hazard Reduction Engineering
- Infrared Imaging

OSHA & NFPA 70 E

Industry consensus standards can be evidence that there is a hazard for which PPE is "necessary". While the NFPA 70E consensus standard has not been adopted as an OSHA standard, it is relevant as evidence that arc flash is a recognized hazard and that PPE is necessary to protect against that hazard.

OSHA Standard Interpretation-How NFPA 70E is used to determine compliance with electrical safety standards.

To learn more about Stark Safety Consultants Electrical Safety Services call toll-free
1.866.923.7922 or email us at info@starksafetyconsultants.com

Are You In Compliance?

1) Have all persons who operate/maintain energized electrical equipment been trained on both shock and arc flash hazards?

YES or NO

2) Do all persons who operate/maintain energized electrical equipment have access to proper personal protective equipment (PPE) to protect from both shock and arc flash hazards?

YES or NO

3) Do you know which of your employees and/or outside contractors are qualified to work with electric equipment?

YES or NO

4) Do you have written electrical safety and lockout/tagout procedures?

YES or NO

5) Has an arc flash analysis and coordination study been completed for your facility's electrical system?

YES or NO

If you answered no to any of these questions then your facility may not be in compliance with the current O.S.H.A. and N.F.P.A. 70E Regulations



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