

## Engineering Services



Electrical Arcing Fault

Are you protected from this deadly electrical arcing explosion? You should be! Now NFPA 70E tells you how. And MIDWEST can do the rest.

An “Arc Flash Hazard Analysis” determines the explosive burning energy that could occur during an arcing fault in your electrical equipment. Many people do not realize this explosive arc is violent and hot enough to kill or seriously injure in a split second. NFPA 70E defines the engineering services to calculate the amount of explosive energy, the level of risk, and the protection needed to prevent serious injury to exposed personnel. OSHA’s “General Duty Clause” and “Safety Related Work Practices” provide the legal motivation.

MIDWEST provides the Engineering services to perform your Arc Flash Hazard Analysis. MIDWEST provides complete services, from site power survey, to engineering analysis, one line drawings, protective labels, personnel training, and final safety documents.

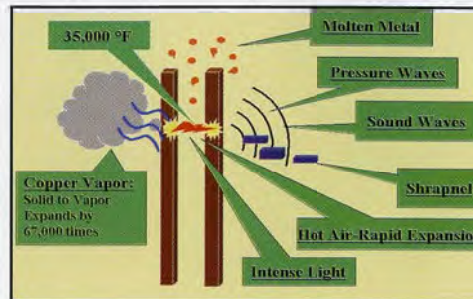
## Engineering Analysis

MIDWEST provides all the services to complete an “Electrical Arc Flash Hazard Safety Program” for your facility, including:

**A Power Survey** of your electrical system to provide “immediate” risk reduction, preliminary training, and recommendations for Personal Safety Kits (PSK) and Personal Protective Equipment (PPE) for your exposed personnel.

**The Field Services** to obtain all the necessary technical information on your electrical equipment and system. This is a detailed collection of data including equipment ratings, protective device settings, conductor ratings and lengths, system configuration, and equipment condition analysis.


**The Engineering Services** to develop a one line drawing; to perform a fault current analysis; to perform a protective device coordination analysis; and to perform an “Arc Flash Hazard Analysis.” The Arc Flash Hazard Analysis determines the arcing energy levels, risk levels, protective boundaries, and recommendations for protective clothing and personal protective equipment.



## Labeling & Training

**Labeling...** Following the Engineering Analysis, MIDWEST prepares a specific label for each electrical device in the analysis. The label is attached to the specific device and informs personnel of the (1) Flash Hazard Boundary, (2) Arcing Energy in cal/cm<sup>2</sup>, (3) Hazard Risk Level, (4) Protective Clothing and Personal Protective Equipment needed, (5) Shock Hazard, (6) Limited Approach distance, (7) Restricted Approach distance, and (8) Prohibited Approach distance. The label simply tells qualified personnel how dangerous the equipment is and what they need to do to protect themselves. *This is the purpose of the Arc Flash Hazard Analysis.*

**Training...** MIDWEST trains personnel to use the “Arc Flash Hazard Program.” This includes using the labeling system, recognizing risk levels and safety boundaries, using the appropriate protective clothing, equipment, and safety procedures in order to minimize their risk to less than a second degree burn if the electrical equipment should fail during service. **Call MIDWEST** for an Arc Flash Hazard Presentation and Proposal.

 <b>WARNING</b>	
Arc Flash and Shock Hazard Appropriate PPE Required	
24 inch	Flash Hazard Boundary
3	cal/cm <sup>2</sup> Flash Hazard at 18 inches
1	PPE Level, 1 Layer 6 oz. Nomex, Leather Gloves Facemask
480 VAC	Shock Hazard when Cover is removed
42 inch	Limited Approach
12 inch	Restricted Approach - 500 V Class 00 Gloves
1 inch	Prohibited Approach - 500 V Class 00 Gloves
Equipment Name: MIDWEST	

