



Arc Flash Services

Safety Means... Expert Analysis and Training

A Comprehensive Arc Flash Hazard Analysis.

An arc flash hazard analysis is critical to the safety of plant personnel working on or near exposed energized electrical equipment. The analysis will quantify the release of thermal energy associated with potential arc flash hazards and will describe safety recommendations such as establishing protection boundaries and specifying protective equipment for personnel.

Many offer this service, but few offer such extensive expertise backed by a full-line of mitigating products and services as Eaton.



Eaton's highly-qualified power systems engineers (PSE) have performed thousands of studies for all types of industries. Every PSE has access to a variety of analysis tools to best address the safety risks of your unique system. Our combined use of commercial and proprietary software utilizes IEEE and NFPA equations and methods for comprehensive and accurate calculations, including fault current momentary duty, device clearing time, arcing fault currents, duration of arc and incident energy. Eaton's PSEs draw on past experience, training and understanding to analyze the figures and develop recommendations which are compiled in a written report. Upon request, the PSE will verbally present the findings in clear and easily understandable terms.

A comprehensive arc flash hazard analysis includes the following services:

- Arc flash system studies, calculations and consulting
- Arc flash labeling
- Creation and/or verification of one-line electrical drawings
- Short circuit and coordination studies

Recommendations to help achieve a safer environment for personnel include:

- Arc flash boundaries
- Safe working distances
- Practical methods for reducing arc flash hazards
- Required protective flame resistant clothing
- Personal protection equipment (PPE)
- Safe work practices

You can be certain that Eaton's extensive experience in arc flash hazard analysis will provide the best solutions to protect what you value most.

An Industry-Leading Arc Flash Safety Training Program.

A top-notch safety plan incorporates not only arc flash hazard analysis recommendations, but also practical training for personnel who operate and maintain energized electrical equipment. Eaton offers both.

While some trainers simply recite information from published manuals, Eaton's trainers are the same electrical engineers who perform arc flash hazard analyses and install, commission, troubleshoot, and maintain electrical equipment every day. When you train with us, you're assured of getting the most current information, techniques, and procedures available to keep your personnel safe and your processes running.

Education – The Key to Better Arc Flash Safety.

Eaton's arc flash safety training will show you how to determine Hazard Risk Category, incident energy value, and flash protection boundary distances for the equipment in your facility. You'll learn to use that information in selecting electrical components designed to minimize arc flash hazards, and how to choose personal protection equipment (PPE) according to the National Fire Protection Association's Standard 70E (NFPA 70E). And because we know that PPE can be bulky, uncomfortable, limit dexterity, and expose workers to heat exhaustion problems, we continually search for, and incorporate into our training, safe ways to minimize the use of PPE. Our training will reveal how a proper examination of your power distribution system can help you avoid "overdressing" for necessary operational and maintenance tasks.

We understand that a "one-size-fits-all" approach to training doesn't fit every situation, so in addition to our power systems training classes, we offer customized training specifically designed for your company's unique requirements. Furthermore, if it's not practical for your staff to train at one of Eaton's facilities, we can conduct the training at your site.

Following is a brief overview of Eaton's one-day "Understanding Arc Flash" training program.

- Existing and Proposed Standards
- Determining Safe Approach Distance
- Methods for Calculating Prospective Short Circuit Current
- NFPA 70E Methods for Calculating Flash Protection Boundary Distance and Incident Energy Value
- IEEE Standard 1584 Methods for Calculating Flash Protection Boundary Distance and Incident Energy Value
- Determining Hazard Risk Category
- Selecting Protective Clothing and PPE Using Incident Energy Exposure Value and the PPE Matrix
- ATPV Values for Common Types of Garments
- Practical Methods for Reducing Arc-Flash Hazard

Eaton can award 0.8 CEUs for the successful completion of this training.

To learn more, contact Eaton's electrical training group at 724-779-5852 or EETraining@eaton.com.

Eaton has been reviewed and approved as an Authorized Provider of continuing education and training programs by the International Association of Continuing Education and Training. We are Authorized Provider Number 921.

