

# Arc Flash Assessment



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Arc flash is an electrical hazard caused by the unintentional discharge of electrical energy from an energized conductor through the air to another conductor or to the ground. It can be caused by many things including:

- » Dust
- » Dropping Tools
- » Accidental Touching
- » Condensation
- » Material Failure
- » Corrosion
- » Faulty Installation

## ► Results of an Arc Flash Explosion Can Be:

- » Heat
- » Skin Burns
- » Flying Shrapnel
- » Blast Pressure
- » Sound Blast
- » Fire

Ideally, the safest way to mitigate arc flash is to de-energize the electrical circuit. However, in some circumstances, that is not possible. In these instances, appropriately rated arc flash personal protective equipment (PPE) would be needed to protect electrical workers from hazards.

## ► Determine and Minimize Risk

The reliability of a facility's equipment is dependent on the quality of the building's power system. Scheeser Buckley Mayfield performs arc flash assessments for a variety of markets, including industrial, commercial, government, health care, and higher education. The goal is to analyze, diagnose and correct power system problems common to many facilities. SBM offers several individual services which can be performed together or separately over a series of months or years:

- » One Line Diagram Preparation and Updates
- » Short Circuit Study and Analysis
- » Protective Device Coordination Study and Analysis
- » Arc Flash Study and Analysis
- » Energy Analysis
- » National Electrical Code Compliance (NEC) Study and Analysis
- » Arc Flash / Short Circuit / Coordination Study

Utilizing SKM Systems Analysis, Inc. software, electrical equipment is modeled, and the results are summarized in a report for quantification and labeling purposes. The report provides arc flash incident energy, PPE, and working clearance information along with recommendations for corrective actions to reduce hazards. The appropriate caution and warning labels are then applied to the electrical equipment.

## ► Next Steps

Individually or combined, SBM's services can provide you with a better understanding of the electrical power distribution system in your facility. Contact us for a free initial consultation to see if SBM can help. Together, we can form a partnership to provide a safer environment.