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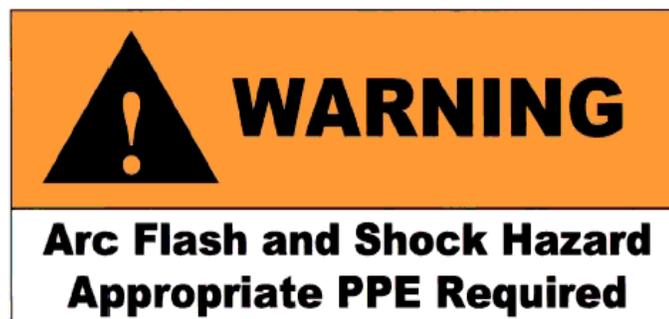
Critical Electrical Arc Flash Information

Arc flash is a short circuit through the air. In an arc flash incident, an enormous amount of concentrated radiant energy explodes outward from electrical equipment. It is a serious hazard that can be devastating to those exposed to it. It can also cause lengthy downtime to repair or replace severely damaged equipment. PEOSHA is now citing and fining employers for failure to protect employees from the dangers of arc flash. For guidelines on best practices for protecting employees, OSHA refers employers to the NFPA 70E standard, "*Standard for Electrical Safety in the Workplace.*"

The vast majority of arc flash incidents occur when there is a change of state within the panel (i.e. opening the panel doors, removing covers, etc.) or through operator error (dropping tools, touching live components, etc). Determining flash protection boundary and the appropriate PPE would be useless without the information being communicated to the personnel working on or in near the potentially hazardous equipment.

Section 110.16 of the NEC 2002 code requires switchboards, panel boards, industrial control panels, and motor control centers to be field marked to warn personnel of the potential electric arc flash hazards.

The markings are to be located so they are visible to the personnel before examination, adjustment, servicing, or maintenance of the equipment. The marking is intended to reduce the occurrence of serious injury or death due to arcing faults to a person who works on or near energized electrical equipment. The warning label should remind a **qualified worker** who intends to open the equipment for analysis or work that a serious hazard exists and that the worker should follow safe work practices and wear appropriate personal protective equipment (PPE) for the specific hazard.



To achieve maximum safety, these labels should be installed on all existing enclosure doors, removable panels, etc. Currently, the Electrical Code does not require the label to list the Flash Hazard Boundary, Incident Energy, Approach Boundaries, or PPE requirements. Future Code revisions will require the incident energy and required personal protective equipment to be listed.

This bulletin is intended for general information purposes only. It should not be construed as legal advice or legal opinion regarding any specific or factual situation. Always follow your organization's policies and procedures as presented by your manager or supervisor. For further information regarding this bulletin, please contact your Safety Director at 877.398.3046