

Arc Flash

Identify Electrical Panels before
Employees Hazardous Areas

Field Overview

- Electrical regulations require Arc Flash labels, voltage markers, *etc.* for the protection of employees performing maintenance and inspections
- OSHA / NFPA require signs/labels to be placed as near to electrical hazard as possible
- Labels mark potential hazards and required PPE for working in that area
- Arc Flash hazards can cause serious injury and/or death
 - Hundreds of people are killed in the workplace each year by electricity
- US Postal Service recently fined at several locations for violations including exposing employees to electrical hazards, shock and arc flashes

What is Arc Flash

- An electrical breakdown in air resistance resulting in an electric arc which can occur where there is sufficient voltage in an electrical system and a path to the ground or lower voltage.
- Arc Flashes produce tremendous amounts of energy causing explosions and serious burns.

Machine Labels

- Comply with OSHA 1910.145
- Place signs to indicate specific hazards
 - Hazards that may lead to accidental injury or property damage.
- Place labels directly on machinery to convey immediate hazard instructions



Electrical Markers

- Electrical Markers
 - National Electric Code (NFPA 70) requires safe working distances based on voltage
 - ≤ 600 volts requires min. 36" working space
 - Label voltage on all electrical panels
 - ANSI color coded Black on Orange labels



Arc Flash

- Comply with NEC Standard 110.16 Flash Protection
 - Switchboards, panel boards, industrial control panels, meter socket enclosures shall be marked to warn qualified persons of potential for electric arc flash hazards
- Provide employees with important information on PPE and approach boundaries
- OSHA 1910 requires safety signs, safety symbols, or accident prevention tags to warn employees about electrical hazards which may endanger them



⚠ DANGER
Arc Flash & Shock Hazard
Appropriate PPE Required

⚠ WARNING
Arc Flash Hazard
Appropriate PPE Required

⚠ DANGER PELIGRO ⚠
Arc Flash and Shock Hazard
Riesgo de Arco Eléctrico y Descarga

Flash Protection Boundary _____
Flash Hazard Category _____ Min. Arc Rating (cal/cm²) _____

Flash PPE: Cotton underwear T-shirt Long-sleeve shirt Long pants
 FR shirt FR pants FR coveralls Flash hood
 Hard hat Leather gloves

Equipment ID: _____

Do not operate controls or open covers without appropriate personal protection equipment.
Failure to comply may result in injury or death!
Refer to NFPA 70E for PPE requirements.

No opere mandos o abra cubiertas sin el equipo de protección personal apropiado.
Fracaso de cumplir puede terminar en herida o muerte.
Refiere a NFPA 70E para requisitos de EPR.

For more information:

- Visit OSHA's eTool on [Electrical Incidents](#)
- [NFPA 70E: Standard for Electrical Safety in the workplace](#)
- [View all of NMC's electrical products](#)

For more information contact NMC at
800.453.2727

Thank You!