

At the request of OSHA, NFPA @ chartered the NFPA @70E Technical Committee and assigned to it the responsibility of defining safe work practices.

Insures compliance with

NEC @ 110.16, OSHA, NFPA @ 70E, IEEE 1582 standards.

Some Regulations Pertaining to Arc Flash:

OSHA 29CFR 1910 Subpart "S" - Electrical

OSHA 29 CFR 1910.132(d) **REQUIRES** employers to assess the workplace to determine if hazards are present or likely to be present, and select and have each employee use the types of PPE that will protect them... Verify that the required workplace hazard assessment has been performed through a written certification that identifies the particular workplace evaluated.

NFPA 70E- 2004 Section 400.11 states "Switchboards, panelboards, industrial control panels, and motor control centers that are in other than dwelling occupancies and are likely to require examination, adjustment, servicing, or maintenance while energized shall be field marked to warn qualified persons of potential electric arc flash hazards. The marking shall be located so as to be clearly visible to qualified persons before examination, adjustment, servicing, or maintenance of the equipment.

Omni Electrical Constructors, Inc. was incorporated in 1993 as a Virginia Corporation in Lynchburg, VA. Omni's primary focus is on industrial electrical & instrumentation construction; plant maintenance; and design services. Omni has strong relationships with its vendors, banks and customers and has the resources to perform large scale projects. Omni is currently serving the Southeastern U.S.

With a staff that has over one hundred years of combined design and installation experience, Omni is committed to providing unparalleled services throughout the Southeastern US. Located in Lynchburg, Virginia, our proximity allows us to be accessible and responsive to the specific needs of public and private clients.

"Experience"

The Omni Advantage

For more information or estimates contact .

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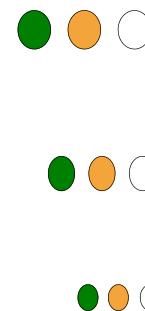
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ARC FLASH STUDY

For Safety, Efficiency,
Risk Management, and
Compliance with Federal
Regulations

THE INDUSTRIAL SPECIALIST

WWW.OMNIELECTRICAL.COM

What is Arc Flash?

Arc Flash is the result of a rapid release of energy due to an arc fault between a phase bus bar and another phase bus bar, neutral or a ground. During which the air is the conductor.



The cause of the short normally burns away during the initial flash and the arc fault is then sustained by the establishment of a highly-conductive plasma. The plasma will conduct as much energy as is available and is only limited by the impedance of the arc. This massive energy discharge burns the bus bars, vaporizing the copper and thus causing an explosive volumetric increase, the arc blast, conservatively estimated, as an expansion of 40,000 to 1. This fiery explosion devastates everything in its path, creating deadly shrapnel as it dissipates.

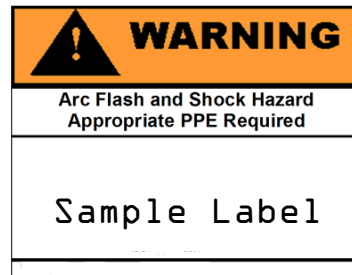


Unless devices have been selected to handle the arc fault condition, they will not trip and the full force of an arc flash will occur. Which could result in serious injury, destruction of property, or even death.

What is the Purpose of an Arc Flash Study?

The purpose of an Arc Flash Study is to protect personnel and equipment from an Arc Flash Hazard.

- Provides a complete workplace electrical hazard assessment and power systems analysis including recommendations for appropriate Arc Flash protection and proper PPE.
- Insures compliance with: NEC ® 110.16, OSHA, NFPA® 70E, and IEEE 1582 standards.
- Improve safety margins with user definable arc fault tolerances.
- Avoid potential fines, lost productivity, and increased insurance and litigation costs.



Experience

With over a hundred years of combined experience, Omni Electrical Constructors, Inc. is committed to providing excellent service. Omni Electrical Constructors, Inc. has extensive design and electrical installation experience with municipal; healthcare; and industrial facilities.

Omni performs the following studies:

- Arc Flash
- Short Circuit
- Circuit Breaker Coordination
- Load Studies

Omni has performed inspections and made audits for new and existing facilities using the latest technology and computer software.