


Q. Arc Flash Prevention Notes

This subject is necessary and somewhat complicated to understand. Although there is a legal requirement to comply there is also a learning curve to climb. I have gathered what I consider to be some necessary information, accessible through the links below, for you to make an informed decision. I have not recommended either of the big guns in the Arc Flash Analysis business simply because of their high cost.....suitable only for the largest of plants, but feel free to check them out here [ETAP](#) and [ESA](#)

This label fixed on the piece of equipment that has been analyzed is the finished product and has been designed to make the working environment safer for all people involved.

 WARNING	
Arc Flash & Shock Hazard Appropriate PPE Required	
FLASH PROTECTION Flash Hazard Category: <u>4</u> Min. Arc Rating (cal/cm2): <u>40</u> Flash Protection Boundary: <u>36</u> PPE: <input checked="" type="checkbox"/> Cotton underwear <input type="checkbox"/> FR shirt and pants (or FR coverall) <input checked="" type="checkbox"/> Full flash suit and hood <input type="checkbox"/> Hard hat <input checked="" type="checkbox"/> Safety glasses or goggles <input type="checkbox"/> Hearing protection <input type="checkbox"/> Leather gloves and shoes	SHOCK PROTECTION 220 VAC Shock Hazard When: <u>the lower cover is open.</u> Limited Approach Boundary: <u>48 inches</u> Restricted Approach Boundary: <u>20 inches</u> Prohibited Approach Boundary: <u>10 inches</u> PPE: <input checked="" type="checkbox"/> Class 40 <input type="checkbox"/> V-Rating <input type="checkbox"/>
Equipment ID: 15763	

Should I be concerned about arc flash?

The primary reason to be concerned about arc flash is for the safety of the personnel. Short circuits and arc faults are very dangerous and potentially fatal to personnel. Exposure to an arc flash frequently results in a variety of serious injuries such as severe burns, damaged eyesight, ruptured eardrums, collapsed lungs, psychological trauma and in some cases - death. Arc flash hazard analysis is required to determine the risk to personnel, warn them of the hazards, and to instruct them as to what kind of personal protective equipment they must wear.

The number two reason to be concerned about arc flash hazards is liability and government regulations. In the United States, OSHA regulations apply to every worker that may approach or be exposed to energized electrical equipment. Failure for an employer to conform and follow OSHA and NEC requirements can lead to employee injuries, fines, penalties, and expensive law suits.

Safety Organizations

- [NIOSH National Institute for Occupational Safety & Health, Publications](#)
- [NFPA 70E : Standard for Electrical Safety in the Workplace](#)
- [NFPA 70 : National Electrical Code](#)

Practical Technical Information

- [Ferraz Shawmut Arc Flash Info Center](#)
- [Understanding and Reducing Arc Flash hazards \(Littelfuse\)](#)
- [EDR Software Tools—Fault Current Calculator](#)
- [Practical Solution Guide to Arc Flash Hazards, free 133 page pdf book](#)

Two Reasonable Cost Methods for Compliance

- [**Arc Flash and Short Circuit Analysis \(reasonably priced\)**](#)
- [Another Alternative to the High Cost Way of being compliant with the necessary codes](#)

Clothing Links:

- [Link to WW Grainger Arc Flash Clothing](#)
- [Salisbury Electrical Safety Catalog](#)
- [ArcWear.com Resources](#)
- [American Safety Utility in Shelby, NC](#)

Arc Flash Labeling

- [The Best Practice Guide to Arc Flash Labeling](#)

Holland Industrial, 518 West Montgomery Street, Henderson, NC., 27536

Tel. 1-800-232-7541, Fax 1-252-492-2444 , E-Mail: sales @ hollandindustrial.com

