

Title: Arc Flash, Arc Flash Studies and Arc Flash Solutions

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The safety awareness for electrical workers has become a major concern in recent years all over North America. OSHA, NFPA 70E and IEEE 1584 has new standards out regarding safety for electrical workers "when exposed to live parts". This presentation will introduce the audience to these new standards, regulations, and safety aspects, translate how they relate to the proper selection of Personal Protective Equipment (PPE), how they can be employed in a power plant and form a key element in any electrical safety program.

IEEE 1584 standard is based on years of research, lab testing actually staging arc fault conditions and has developed a realistic method of quantifying the incident energy available to the worker. Arc Fault studies employing IEEE 1584, provide a realistic method of determining the incident energies available at a given location and the related PPE requirements at that location to protect that individual--not too much-- or too little PPE.

It is not uncommon to find extremely high incident energy levels available in the auxiliary system in a large power plant. As such, there are locations where theoretically, service cannot not be performed on the equipment while energized and still comply with the appropriate safety standards. Multiple Arc Flash Solutions to mitigate and reduce the available incident energies will also be presented that are readily available in the market place. Some of these solutions will be presented using real case studies.