



**Introduction:** This standard describes the conditions that must be met to ensure the protection of workers while working on or in close proximity to live electrical equipment.

**Definitions:** **Arc Flash** - a dangerous condition associated with the release of energy caused by an electric arc.

**Arc Rated Clothing** - clothing that is manufactured and tested specifically to withstand and protect workers from the heat energy release from arc flash. Arc rated clothing or garments shall be:

- a) Flame Resistant (FR), and
- b) identified with an Arc Rating, expressed by the Arc Thermal Performance Value (ATPV) or Energy of Breakopen Threshold (Ebt)

Note: The most common standard for the manufacturing of arc-rated garments is ASTM F1506, Standard Performance Specification for Flame Resistant Textile Materials for Wearing Apparel for Use by Electrical Workers Exposed to Momentary Electric Arc and Related Thermal Hazards

**Standard:**

1. All NB Power assets shall have an Arc Flash program designed to comply with this standard that will include the following:
  - Assessment of electrical systems for arc flash incident energy levels,
  - Engineering controls for areas above established maximum incident energy (IE) limit,
  - Administrative controls to reduce or eliminate the risk to exposure,
  - Arc Rated Personal Protective Equipment (PPE) with an arc rating higher than the estimated incident energy to protect employees from severe burns and other injuries associated with an arc flash event.
2. Every reasonable effort shall be undertaken to avoid exposing employees to work areas in excess of 8.0 cal/cm<sup>2</sup>.
3. A process for informing workers of arc flash hazards shall be in place.
4. Where practical, workers shall be informed when working in NBP areas that exceed 8.0 cal/cm<sup>2</sup>. In some cases employees may need to enter customer premises that may not have been assessed. For these situations refer to T&D SWM 3.04.01 Arc Flash Protection.
5. Arc Flash Awareness training shall be given to all employees and contractors that will be performing work on or in proximity to live electrical equipment.
6. The arc flash boundary shall be identified to prevent those not working on the equipment from getting injured if an arc flash were to occur. An arc flash boundary is the approach limit at a distance from a prospective arc source within which a person could receive a second degree burn if an electrical arc flash were to occur.

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Title:  
**Arc Flash**

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7. Only competent employees or contractors shall work with in the arc flash boundary when exposure to an arc flash hazard is present.
  
  8. Employees shall be provided the proper Arc Rated PPE and tools to comply with this standard.
  
  9. Contractors hired to work on live electrical equipment shall arrive at the work location with the proper Arc Rated PPE and tools to comply with this standard.
  
  10. Employees and Contractors shall adhere to the respective Arc Flash Standards or Standard Work Methods governing their work.

**Reference/Appendix:** Corporate Safety Manual Section 7.1  
CAN/ULC – S801 Standard on Electric Utility Workplace Electrical Generation, Transmission & Distribution  
GS068 – Arc Flash Prevention and Protection (Generation)  
SWM 3.04.01 – Arc Flash Protection (T&D)

A handwritten signature in black ink, appearing to read "Gary S. Boyd", is positioned above a horizontal line.

Gary S. Boyd, Director  
Health, Safety & Security Services

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