



# Arc Flash During Mutual Assistance

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- Compliance with NESC rule 410A3 during mutual assistance events.
  - Effective as of January 1, 2009, the employer shall ensure that an assessment is performed to determine potential exposure to an electric arc for employees who work on or near energized parts or equipment. If the assessment determines a potential employee exposure greater than 2 cal/cm<sup>2</sup> exists .... the employer shall require employees to wear clothing or a clothing system that has an effective arc rating not less than the anticipated level of arc energy.

# S.E.E.'s Approach

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- Surveyed member companies as to their current plan
- Provided survey results to mutual assistance committee
- Reviewed the current SEE and EEI Guidelines
- Held a roundtable to determine if what we already have is adequate
- Each company does an assessment to determine future plans

# Survey Results

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- Surveyed member companies as to their current plan
  - ◆ Calculations differ for each system
  - ◆ Average system requirements varied from 2 cal/cm<sup>2</sup> to 8 cal/cm<sup>2</sup>
  - ◆ Results were inconsistent

# Review of EEI and SEE mutual assistance guidelines



## ■ EEI

3. Employees of Responding Company shall at all times during the emergency assistance period continue to be employees of Responding Company and shall not be deemed employees of Requesting Company for any purpose. Responding Company shall be an independent Contractor of Requesting Company and wages, hours and other terms and conditions of employment of Responding Company shall remain applicable to its employees during the emergency assistance period.
6. Responding Company's safety rules shall apply to all work done by their employees. Unless mutually agreed otherwise, the Requesting Company's switching and tagging rules should be followed to ensure consistent and safe operation. Any questions or concerns arising about any safety rules and/or procedures should be brought to the proper level of management for prompt resolution between management of the Requesting and Responding Companies.

## ■ SEE

- 2.3 Responding Company will follow its own safety rules, except as noted in 2.5 and 2.6 below.
- 14.1 To the extent possible, the Requesting Company is expected to clearly communicate the degree of devastation and working conditions Responding Company personnel should expect to encounter upon arrival at the emergency restoration work area.
- 14.6 The Requesting Company is encouraged to communicate general guidelines with Responding Companies. Items covered may include labor contractual issues, safety issues, contact personnel, vehicle fueling arrangements, typical standard construction, meal and lodging arrangements, and other items that will be of benefit to the responding personnel and their supervision.

- Existing guidelines establish the following overarching principles
  - ◆ The responding company is ultimately responsible for their employees' safety
  - ◆ The requesting company is ultimately responsible for providing the arc flash information to the responding company

# Recommendations

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- Responding Company and Requesting Company must have a pre deployment call to discuss the following:
  - Arc Flash calculations and flame resistant clothing requirements for the impacted system
  - Flame resistant clothing worn by the responding company
- Responding Company is responsible for adherence to safety rules
- Potential Solutions for inability to comply
  - De-energized or limited energized work
  - Host company supplies alternate crews for energized work
  - Effective scheduling of Crews
- Don't Forget Contractors
  - Same requirements

# Duke Energy Preparation

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PRE January 1, 2009

- Assessed the Duke Energy System
- Identified any areas that require more than  $> 4 \text{ cal/cm}^2$
- Engineered solutions for  $> 4 \text{ cal/cm}^2$  areas where practical
- Implemented those solutions prior to Jan. 1, 2009

# Duke Energy implementation

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- Arcflash requirements will be discussed during mobilization calls with responding companies (similar to lockout tag out discussions)
- Responding company employees will receive a safety orientation
- FR clothing  $> 4 \text{ cal/cm}^2$  will be required
- Responding companies must ensure their workers are in compliance

# Questions

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- Questions for discussion now?
  
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