

Arc Flash Discussion

# EEI Industrial Safety and Health Spring Conference 2009

# Clothing



- 7 oz. Endura shirt ATPV 8.7 Calories
  - Required when working on pole or structure
  - Required when working on energized equipment >300v
- 100 % cotton t-shirt
  - Worn as general work attire for non-electrical exposure
- Pants
  - 100% natural fiber
- Rainwear
  - FR rainsuit

# Arc Analysis



- Distribution System Parameters
  - System Voltages 12 kV and 35 kV
  - Maximum Fault Current 8.8 kA
  - Maximum Clearing Time 6 – 16 Cycles
- Analysis Tool
  - Arc Pro
  - Assumptions
    - Distance of receiving surface from arc 15 inches
  - No exposure exceeds 8 cal. on overhead system

# Special Application



- Full Flash Protection
  - FR Jacket worn over FR shirt
  - Face Shield
  - Class 2 Rubber gloves
- Application
  - 480 volt self contained meter applications
  - 480 volt network applications
  - 208 volt network applications

# What next:



- Regulatory changes
  - Proposed changes to Subpart V
  - Proposed changes to NESC
- Incorporate High Visibility requirements
  - Use same garment for multiple use
- Incorporate FR into Winter wear