


# Solutia, Inc.

Greenwood, SC

## Arc Flash / PPE Evaluation



 <b>WARNING</b>	
<b>Arc Flash and Shock Hazard</b>	
<b>Appropriate PPE Required</b>	
<b>31 inch</b>	Flash Hazard Boundary
<b>3.0</b>	cal/cm <sup>2</sup> Flash Hazard at 18 inches
<b>Category 1</b>	FR Shirt & Pants
<b>575 VAC</b>	Shock Hazard when cover is removed
<b>0</b>	Glove Class
<b>42 inch</b>	Limited Approach (Fixed Circuit)
<b>12 inch</b>	Restricted Approach
<b>1 inch</b>	Prohibited Approach
<b>Bus: #3 MULT-FL MCC Prot: FU-#3 MULT-FL</b>	



Solutia, Inc. operates a manufacturing facility that includes three major Nylon operations: Bulk Continuous Filament (BCF) fiber, Nylon Industrial Yarn, and Polymer Flake. The facility has been in operation since 1960. Solutia is a participant of the South Carolina OSHA Palmetto Star Voluntary Protection Program (VPP), affirming their commitment to employee safety, and to operate in a safe, efficient, and environmentally responsible manner. Part of this commitment includes meeting the requirements of the NEC and NFPA for flash protection. Perigon worked collaboratively with Solutia to perform an arc flash study, modeling a system that represented nearly 30MVA of connected electrical load and nearly 800 modeled busses. Perigon's deliverables on this project included:

- Arc Flash labels for all modeled busses, plus generic Category 0 labels for busses not included in the model
- Sixteen single-line diagrams of the modeled plant electrical system, including arc flash and short circuit information at each bus
- Identifying areas for improving short circuit coordination and reduction of arc flash levels and PPE requirements, reducing PPE cost and creating a safer work environment.