

ARC-FLASH HAZARD ANALYSIS



An Arc-Flash Hazard Analysis is a critical life-safety issue and an essential part of your electrical safety program. The Arc-Flash Analysis will improve safety and ensure that your facility is in compliance with federal and local standards. OSHA and NFPA 70E require a new analysis at least every five years or after any significant change to your electrical system. RLC's staff of licensed electrical engineers are experts in Arc-Flash Hazard Analysis (AFHA) and will identify the hazards and potential for injury, and then provide a comprehensive report. This will include determining what protective measures are required, providing proper required labeling, and recommending any improvements required to reduce potential risks to personnel safety and equipment damage.

AN ELECTRICAL ARC FLASH CAN BE CAUSED BY:

- Accidental contact with energized components within equipment;
- Improperly designed or utilized equipment;
- Equipment failure;
- Workers interacting with energized equipment;
- Removal/Installation of circuit breakers or fused switches;
- Loose connections
- Energization and switching operations

ARC FLASH HAZARDS FACTS

- 5-10 Arc Flash accidents occur every day in the U.S
- \$1.5M - Average cost of medical treatment
- Arc blasts can produce a pressure wave greater than 2,000 lbs./ft²
- \$10-15M - Average litigation cost
- Arc Flash temperatures of 35,000°F (4 times the sun's surface)
- +2,000 people are treated annually in burn centers
- NFPA 70E 130.5(G) requires an updated analysis for system changes or at least every 5 years

 WARNING	
Arc Flash and Shock Risk Assessment Appropriate PPE Required	
10' - 11" 28.6 Level C	Arc Flash Boundary cal/cm ² at 18.0 Inches - Arc Flash Incident Energy Refer to NFPA 70E-2015 Table H.3(b)
0.48 3' - 6" 1' - 0"	KV Shock Hazard when cover is removed Limited Approach Restricted Approach - Class 00 Voltage Gloves
Equipment Name: MPB-1	



ARC FLASH ANALYSIS SAFETY STANDARDS FOR MANY APPLICATIONS

- National Fire Protection Association (NFPA) Standard 70E for Electrical Safety in the Workplace
- Institute of Electrical and Electronics Engineering (IEEE) 1584-Arc Flash Calculation
- OSHA 1910.269
- NESC Handbook 2017

ELECTRICAL SHOCK HAZARD ASSESSMENT SERVICES

- Field investigations to gather as-built data
- Develop system model of site
- Perform short circuit analysis
- Perform selective coordination study
- Perform Arc Flash calculations
- Engineering analysis and report of results
- Recommend improvements to reduce hazard risks
- Generate labels on equipment to warn of hazards
- Integrate with Electrical Safety Programs