

ARCFLASH

analysis, consulting, & training

Arc Flash Analysis, Consulting, & Training

PHASE I:

Site Assessment and Electrical System Data Gathering

- Accurate, up-to-date information on the facility electrical system is absolutely essential to the analysis:
 - Transformer Data - KVA, Voltages, Impedance
 - Conductor Sizes and Lengths
 - Fuse and Circuit Breaker Data
 - Electric Utility - Available Capacity (minimum & maximum)
- Develop Accurate One-Line Diagrams

PHASE II:

- Utilize data from Phase I to evaluate the power system, complete an Arc Flash Analysis using IEEE1584 and NFPA 70E. (We recommend that this be performed by a licensed Professional Engineer.)

Short-Circuit Analysis

- Required for Coordination Analysis
- Required for Arc Flash Analysis
- Required for Interrupting Rating Analysis

Protective Device Coordination Analysis

- Determine Total Clearing Time at Given Fault Currents Required for Arc Flash Analysis

Interrupting Rating Analysis

- Determine if protective devices have adequate interrupting capacity for the available short-circuit current

Arc-Flash Hazard Analysis

- Calculate Incident Energy (generally at 18 or 24)
- Calculate Flash Boundary
- Determine Hazard/Risk Category
- Specify PPE Requirements

Recommend Solutions to Problems and Identify Opportunities

- Coordination Problems
- Inadequate Interrupting Ratings
- Potentially Dangerous Arc Flash Energy
- Opportunities to Reduce Hazard/Risk Category Level

PHASE III:

- Determine Policies on Electrically Safe Work Conditions
- Develop an Electrically Energized Work Permit
- Establish PPE Requirements Inside Shock Boundaries
- Determine PPE Clothing Policy

Procure Appropriate PPE

- Flame-Resistant Clothing Based on Hazard/Risk
- Voltage Rated Gloves
- Voltage Rated Tools

Warning Labels

- Apply Warning Labels to Specified Equipment
- Include Incident Energy, Hazard/Risk Category, Boundaries, and PPE

ELECTRICAL SAFE WORK PRACTICES TRAINING

- Provide training for all Qualified Employees, Supervisors, and Safety Personnel on Electrical Safe Work Practices Program and Hazard Recognition and Avoidance (Minimum Two Days)
- Provide training for all Affected Employees Operators, Mechanics, and Management (Half-Day)



We Improve Workplace Safety & Performance

CONTACT US:
www.lewellyn.com or
800.242.6673