

Base Technical & Critical Environments

Understanding electrical distribution systems and equipment is essential to guaranteeing power continuity, performance, and safety for critical equipment and the personnel who maintain them. The correct installation, operation and maintenance of these systems save thousands of dollars, prevent equipment damage, and prevent accidents, while ensuring system availability. The purpose of this course is to provide a comprehensive overview of typical electrical systems present at critical data sites. The instructor will utilize lectures, plant walkthroughs, case history examinations, and hands-on demonstrations to provide the greatest possible exposure to typical electrical equipment and configurations. Anyone who works on or near power generation, transmission, or distribution systems, and any new employees should attend this course.

Course Duration: 4 days

BASE TECHNICAL & SAFETY

- General Safety Overview
- Review of LOTO
- Don, Doff & Adjustment of PPE
- Limitations of PPE
- Safety Program Updates
- Fluke Meter Overview
- Fluke Meter Hands on
- Schematics & Diagram Analysis
- Facility One Line Diagram Analysis

LOW VOLTAGE SWITCHGEAR

- Low Voltage Safety
- Design and Construction
- Circuit Breaker Construction and Maintenance
- Ground Fault Protection
- Contactors Construction
- Fuses
- Thermal Overloads
- Nameplate Data and Reading

MEDIUM VOLTAGE SWITCHGEAR

- Medium Voltage Safety
- Power Distribution
- Codes and Standards
- Grounding
- Components
- Switchboard Inspections

BATTERIES & UPS SYSTEMS

- Introduction
- Battery Construction
- Battery Testing
- Battery Load Testing
- Battery Charging
- Battery Safety
- UPS Operations

GENERATORS

- Codes and Standards
- Power System Overview
- Function Design
- System Operation
- Maintenance & Troubleshooting
- Case Studies