Electrical Safety – NFPA 70E for Facilities Maintenance
2 Days

The foremost goal of this Arc Flash Electrical Safety course is to keep workers safe while working on or around electrically energized equipment. The course is structured to help companies fulfill requirements set forth in OSHA 29 CFR Part 1910, Subpart S Electrical and NFPA 70E® “Standard for Electrical Safety in the Workplace,” which requires this type of instructor-led training for anyone working with electrically energized equipment.

Topics

1. Electrical Hazards and Basic Electrical Safety Concepts
    - OSHA and NFPA
    - NFPA Consensus Process
    - OSHA Electrical Regulations
    - Electrical Injuries
    - Effects of Electric Shock
    - Recognized Hazards
    - Arc Blast
    - Arc-Rated Clothing
    - Incident Energy

2. Multi-Employer Worksites and Electrical Safety Programs
    - Multi-Employer Worksites
    - Employer Roles
    - Electrical Safety Programs
    - Items in an ESP

3. Training of Qualified and Unqualified Workers
    - Qualified Person
    - Requirements for a Qualified Electrical Worker
    - New Requirements and Informational Notes—NFPA 70E 130
    - Arc Flash Hazards
    - Types of Training
    - Training for Unqualified Persons

4. Approach Boundaries for Shock and Arc Flash Hazards
    - Clearance Distances
    - Approach Boundaries
    - Arc Flash Boundary
    - Energized Electrical Work Permits
    - Safe Work Zones

5. Performing a Risk Assessment
    - Risk Assessment
    - Electrical Hazards
    - Assessing Hazards
    - Determining the Hazard
    - Determining Risk
    - Methods for Performing a Risk Assessment
    - Forms for Performing a Risk Assessment

6. Establishing an Electrically Safe Work Condition
    - Deenergized Parts
    - Placing Electrical Equipment in an Electrically Safe Work Condition
    - Testing for Absence of Voltage
    - Establishing an Electrically Safe Work Condition per NFPA 70E
    - Temporary Protective Grounding Equipment—NFPA 70E 120.3

7. Working on Energized Conductors and Circuit Parts
    - Determining Energized Work
    - Work Involving Electrical Hazards
    - Electrically Safe Working Conditions
    - Energized Electrical Work Permits
    - Approach Boundaries to Energized Electrical Conductors or Circuit Parts for Shock Protection
    - Arc Flash Risk Assessment
    - Other Precautions for Personnel Activities
    - Other Protective Equipment
    - Standards for Other Protective Equipment
    - Work within the Limited Approach Boundary or Arc Flash Boundary of Uninsulated Overhead Lines
    - Important Requirements of OSHA 1910.269

8. Portable Electric Tools and Flexible Cords
    - Flexible Cords •
    - Temporary Wiring •
    - Portable Electric Equipment per OSHA •
    - Portable Electric Equipment per NFPA 70E 110.4(B)

9. Selecting and Inspecting Personal Protective Equipment
    - Personal Protective Equipment
    - The Use of PPE per OSHA
    - Types of PPE
    - PPE per NFPA 70E

10. Guidelines for Common Electrical Tasks

- Removing and Inserting Low- or Medium-Voltage Drawout-Type Circuit Breakers
- Operating Medium-Voltage Air-Break Switches
- Inserting and Removing Motor Control Center Buckets
- Troubleshooting Circuits
- Troubleshooting AC Drives
- Testing for the Absence of Voltage
- Operating Equipment Rated 240 V and Less and 240 V to 600 V
- Operating NEMA E2 (Fused Contactor) Motor Starters
- Removing Covers and Panels from Electrical Enclosure
- Replacing Light Ballasts
- Replacing Low- or Medium-Voltage Motors

Class Options:
Live In-Person
ZOOM - Webinar
Online – No instructor – Self Paced
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