

Electrical Safety & Arc Flash Hazard Training

INSTRUCTOR-LEAD TRAINING PROGRAM

Purpose of Training:

The Electrical Safety and 70E® Arc Flash Protection training course is designed to save lives, prevent disabling injuries, and prevent damage to plants, building and equipment.

Based on NFPA 70E®, students attending this course will gain an immense respect for the power of electricity. They will learn about personal safety for working on or around electrical systems and equipment, how to use proper materials and procedures for doing electrical work - and the potential consequences for themselves or others if they don't.

Students are given practical instruction applicable to their specific job or task while working on or around energized electrical equipment. This course also helps companies' meet their OSHA training obligations as outlined in CFR 1910.331-335.



Training Outcomes:

Attendees will learn to:

1. How to identify electrical hazards
2. The difference between "qualified" and "unqualified" electrical workers
3. Safe approach distances to exposed electrical conductors
4. Improvements in PPE (Personal Protective Equipment) for electrical safety
5. "Hot Work" rules
6. Proper work practices in wet or damp locations containing electricity
7. Lockout/Tagout procedures for electrical equipment and systems
8. Safety requirements for electrical installations
9. Damage caused to equipment from poor electrical safety practices
10. Damage caused to people from poor electrical safety practices
11. Just how much voltage / current is too much for the human body to handle
12. How OSHA Rules apply to your job & workplace
13. What it takes to establish compliance
14. OSHA penalties for noncompliance



Course Agenda

I. Electrical Safety & the Qualified Electrical Worker

- A. Background, Responsibilities & Requirements
- B. Safety Standard Types: NFPA 70E® & Others
- C. OSHA Electrical Safety Regulations Overview

II. Electrical Hazards

- A. Power of Electricity - Shock, Arc-Flash & Arc-blast
- B. How to identify electrical hazards
- C. Electrical Fires
- D. Electrical Burns
- E. Static Electricity
- F. Accident Prevention
- G. Emergency Response

III. Safety Related Work Practices

- A. Definitions
- B. General Requirements
- C. Establishing Safe Work Condition
- D. Electrical Lockout / Tagout
- E. Working on or near Energized Parts
- F. Safe Approach Distances
- G. Energized Work Permit
- H. Conducting an Arc Flash Analysis
- I. Reading Arc Flash One Line Diagrams
- J. Determining PPE Requirements from the Arc Flash Analysis

IV. Safety Related Maintenance Requirements

- A. General Maintenance Requirements
- B. Substations, Switchgear, Switchboards, Panelboards, Motor Control Centers, Disconnect Switches
- C. Premises Wiring
- D. Controller Equipment
- E. Fuses & Circuit Breakers
- F. Rotating Equipment
- G. Hazardous (Classified) Locations
- H. Batteries & Battery Rooms
- I. Portable Electrical Tools & Equipment (PPER)



V. Safety-Related Work Practices & Requirements for Special Equipment

- A. Electrolytic Cells
- B. Batteries & Battery Rooms
- C. Lasers
- D. Power Electronic Equipment

VI. Electrical Safety Program

- A. Setting up an Electrical Safety Program
- B. Implementing an Electrical Safety Program
- C. Complying with NFPA 70E®
- D. Interpreting Arc Flash Analysis Reports
- E. Determining your PPE Requirements

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Pricing

TBD

CEUs (Continuing Education Credits)

After completion of the Electrical Safety / Arc Flash course, students will receive a Certificate of Completion and 0.8 CEUs (Continuing Education Units) for each day of training completed.

- ½ Day Course = 0.4 CEUs
- 1 Day Course = 0.8 CEUs
- 2 Day Course – 1.6 CEUs