

# Electrical Safety Training for NFPA 70E

Chapter 1 and Chapter 2



## Ensuring Power System Safety

NFPA 70E requires all personnel involved with the operation and maintenance of a power distribution system to be 'qualified' electrical workers. Participants who complete this course will gain knowledge and skills necessary to meet NFPA 70E requirements and earn the designation of a "Qualified Person". The course will also train participants on NFPA 70E safety-related maintenance requirements.

*"NFPA 70E, Article 205.1 **Qualified Persons.** Employees who perform maintenance on electrical equipment and installations shall be qualified persons as required in Chapter 1 and shall be trained in, and familiar with, the specific maintenance procedures and tests required."*

### Next Level Reliability

To learn more about ERS' Training Services, please contact us at 1 877-468-6384 or visit [ERS.vertiv.com](https://ERS.vertiv.com).

## Course Overview

This electrical safety course is designed to provide critical components of the training required to become an NFPA 70E "Qualified Person". This two-day seminar can be adapted to be delivered at a company's facility, campus, or site.

The proper operation and maintenance of major electrical components will be presented using specific equipment manufacturer's instructions whenever possible. In absence of manufacturer's instructions, the applicable national standards for maintenance and testing will be utilized, per the InterNational Electrical Testing Association *Standard for Maintenance Testing Specifications for Electrical Power Equipment and Systems (ANSI/NETA MTS)* or *NFPA 70B Standard for Equipment Maintenance*. Site and equipment specific safety hazards and mitigation techniques will be covered. The course will utilize both lecture and hands-on demonstrations to provide the greatest possible exposure to power distribution system safety, operations, and maintenance requirements.

**Course Duration: 16 Hours.**

## Two Day Seminar Course Outline

### Day 1

#### NFPA 70E Chapter 1—Electrical Safety

- Premise of Arc Flash Electrical Safety
  - Electric Shock
  - Arc and Blast
- Application of Safety-Related Work Practices
- General Requirements for Safety-Related Work Practices
- Establishing an Electrically Safe Work Condition
- Work Involving Electrical Hazards
- Portable Tools and Equipment
- Personal Safety and Protective Equipment

### Day 2

#### NFPA 70E Chapter 2—Safety-Related Maintenance Requirements

- One-Line Diagrams
- Switchboards
- Switchgear Assemblies
- Panelboards
- Motor Control Centers
- Disconnect Switches
- Bus, Cable, and Wiring
- Fuses
- Circuit Breakers
- Rotating Equipment
- Automatic Transfer Switches
- Batteries and Battery rooms
- Uninterruptible Power Supplies/UPS
- Hazardous Locations

## Training Materials

Electrical Reliability Services (ERS) will provide student manuals, supplemental materials, video presentations, and demonstration equipment. A "Certificate of Completion" is provided for students meeting or exceeding minimum course standards. Minimum course standards are defined as a 70% score on the written post course examination.