ELECTRIFICATION SERVICE — TRAINING

Electrical safe work practices

NFPA 70E 2024*

This fast-paced class is designed for personnel who work on, around or near electrically energized equipment.

Course length: 1 day

Course details

Participants in this program will learn about critical topics, including electrical hazards, the safe installation of electrical equipment and proper practices and procedures to help ensure workplace safety.

The course provides an in-depth review of the new NFPA 70E 2024 requirements, rules and regulations, as mandated by OSHA's Electrical Safety-Related Work Practices Standard (1910.331-1910.335). It offers life-saving insights and essential updates, serving as both a refresher for experienced individuals and a foundation for those with limited exposure to electrical safety practices.

Key takeaways from this training

1. A thorough understanding of the differences between the 2021 and 2024 NFPA 70E editions
2. Enhanced safety awareness to protect workers and their teams
3. Knowledge of the minimum requirements of OSHA standards and their workplace applications
4. Skills to identify hazards, prevent accidents and avoid costly fines
5. Strategies for injury prevention and life-saving decision-making
6. Insights into the critical relationship between the NFPA 70E and NFPA 70B standards

* Please note this program contains graphic material.

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Training outline

Standards for electrical safety
- OSHA CFR 1910.331-335
- NFPA 70B and NFPA 70E
- Workplace safety programs

Personal protective equipment
- Arc-rated clothing
- PPE categories
- Voltage-rated gloves and tools
- Selecting PPE
- Incident energy vs. 70E tables

Electrical fundamentals
- Understanding electricity
- Conductors/insulators
- Shock-safe and unsafe current values

Work involving electrical hazards
- Justification
- Permits
- Exemptions

Risk assessment
- Assessment procedure
- Human error
- Likelihood of occurrence
- Hierarchy of risk-control methods
- NFPA 70E hazards
- Approach boundaries for electric shock protection
- Limited
- Restricted
- Arc flash boundary
- Clearance distances
- Labeling

Insulating and other protective methods
- Rubber insulating gloves
- Insulated tools
- Barricades/attendants
- Conductive articles

Outside service personnel
- Host employer
- Contractor employer

Reducing electrical hazards
- Circuit breakers
- Fuses
- Grounding
- Cords
- GFCI

Meter safety
- Selection and use
- Types
- Category rating

Energy-control program
- Lockout/tagout (LOTO)
- Training
- Auditing
- Stored energy

Battery safety
- Article 320 and Annex F
- Damaged lithium batteries
- Capacitors

NIOSH case studies
- Fatality assessment
- Attitudes, emotions and conditions

ABB Inc.
305 Gregson Drive
Cary, NC 27511

electrification.us.abb.com/service

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