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Combined NFPA 70e LV Arc Flash And HV Electrical Safety

Course details: https://www.electricityforum.com/electrical-training/combined-nfpa70e-lv-hv-safety

COURSE DATES AND TIMES

September 25-26 , 2024
10:00 am - 4:30 pm ET
November 20-21 , 2024
10:00 am - 4:30 pm ET
December 18-19 , 2024
10:00 am - 4:30 pm ET

NFPA 70e Arc Flash Training

Our 12-Hour combined NFPA 70e Arc Flash Training and High Voltage Electrical Safety

live online instructor-led course introduces front line qualified electrical workers to the electrical safety regulations found in NFPA 70E and explains the relationship between OSHA and NFPA 70E, the course moves through the standard, article by article, highlighting the important points in each.

Our NFPA 70e Arc Flash Training course is designed to help companies fulfill requirements of 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. This course includes changes in the latest version of NFPA 70E.

is instructed by one of North America's leading experts on Arc Flash and Arc Blast Hazard Protection and Mitigation. He will present new content NOT covered in our previous Arc Flash training courses and report on recent code revisions from NEC and NFPA, and the National Electrical Code. We teach general electrical safety principles and train electrical professionals on how to best develop an effective electrical safety program. Between these two elements, there will be plenty of examples and exercises for delegates to follow and then take back and apply to their electrical safety work practices.

Our NFPA 70e Arc Flash Training course will teach you how to:

- Define Short Circuits And Electrical Arcs.
- Understand Arc Flash Parameters.
- Determine Energy Released During A Short Circuit And Why You Need To Be Protected.
- Learn Techniques For Reducing Arc Flash Energy.
- Learn How To Protect Yourself And Those Around You From Electrical Hazards.
- Learn How To Select Proper Personal Protective Equipment (PPE) For The Right Environment.

Dangers such as shock, electrocution, and arc blast will always be present on the job, but proper training and safety strategies can minimize the likelihood of injuries and fatalities. NFPA 70E - Electrical Safety in the Workplace - covers the full range of electrical safety issues from work practices to maintenance, special equipment requirements, and installation. In fact, OSHA in the United States already bases its electrical safety mandates on the comprehensive information in this important Standard.

High Voltage Safety Training

This 6-Hour (one day course) live online instructor led course is designed for electrical maintenance personnel responsible for Medium Voltage/High Voltage electrical systems, supervisory and health and safety professionals who are responsible for overseeing high voltage electrical work.

Dynamic and highly concentrated, this High Voltage Safety Training course places maximum emphasis on safety when working on or near energized electrical equipment.

Students will learn the damage electricity can cause to the human body and understand the basic principles of safety in normal and abnormal conditions. They will also learn how to provide assistance in determining severity of potential exposure to Medium Voltage/High Votlage arc flash hazards, planning safe work practices and selecting proper personal protective equipment.

During this High Voltage Safety Training course you will learn to recognize and avoid electric shock in unsafe work areas. You will also learn correct approach distances. Upon completion, you will have a better understanding of proper voltage rated tools and the use of proper personal protection equipment. By educating workers on issues central to the safe performance of their everyday jobs, loss of life or serious injuries can be reduced and eliminated from your workplace. Your safety and the safety of your coworkers depend on it!

Review National and Provincial Medium Voltage/High Voltage electrical safety standards and regulations.

This One-Day High Voltage Safety Training Course Will Focus On The Following Areas:

- Job Briefing Requirements
- Hazardous Energy Control (Lockout/Tagout)
- Switching Procedures
- Clearance Procedures

- Personal Protective Equipment (PPE)
- Flame Resistant (FR) Clothing
- Rubber Protective Equipment
- Live-Line Tools & Testing Requirements
- Working On Or Near Exposed Lines
- De-Energizing Lines And Equipment
- Personal Protective Grounding
- Substation Safety
- Special Conditions
- Capacitors
- Current Transformers
- Potential Transformer Hazards
- Fuse/Relay Coordination

WHO SHOULD ATTEND

Anyone whose job involves designing, reviewing, evaluating or installing electrical systems, including: designers, installers, engineers, electrical contractors, technicians, project managers, safety managers, inspectors, and others who are involved in hands-on electrical roles or maintenance planning.

- Industrial, Commercial, Institutional Electrical Professionals
- Electrical Engineers
- Electrical Technicians
- Plant Electricians
- Linemen
- Electrical Supervisors
- Personnel Who Work On Or Near Energized Electrical Equipment And Systems

STUDENTS RECEIVE

- **FREE** 100-Page Digital Electrical Safety Handbook (Value $20)
- **$100 Coupon** Toward Any Future Electricity Forum Event (Restrictions Apply)

- 1.4 Continuing Education Unit (CEU) Credits
- **FREE** Magazine Subscription (Value $25.00)
- Course Materials In Paper Format

COURSE OUTLINE

NFPA 70e Arc Flash Training - Live Online Instructor-Led Course

DAY ONE

Electrical Hazards

- Five Main Factors In Electrical Accidents
- Electrical Shock
- Arc Flash Defined
- Incident Energy Defined
- Arc Flash Burn Injuries
- Arc Blast Pressure
- Inhalation Injuries

Existing and Proposed Standards

- NFPA 70e
- IEEE 1584
- OSHA
- Occupational Health And Safety Act And Regulations

Shock Hazards & Protection Strategies

- Understanding Shock
- Variables Impacting Hazard
- Protection Boundaries
- Voltage Rated Gloves And Other Shock PPE
- Rated Insulated Tools And Other Equipment

Arc Flash Hazards & Protection Strategies

- Causes/Types
- Arc Blast
- Common Places
- Mitigating Hazard Through Engineering Design And Work Methods
- Arc Flash Boundaries
- Practical Application

Arc Rated Personal Protective Equipment

- Overview
- Protecting Head, Hands And Feet
- PPE Programs: Categories, Levels, Systems
- Environmental Considerations
- PPE Guidelines And Maintenance

Job Planning

- Elements Of Safety Planning
- Job Briefing
- Energized Electrical Work Permit

Risk Assessment

- Components Of Assessment
- Methods: Tables Or Incident Energy Calculations
- Labeling
- Steps To Determine PPE Required
- Task Assessment Exercise

Safety Related Work Practices

- Defining “Electrically Safe Work Condition”
- Identifying And Securing Boundaries
- Tools And Equipment
- Best Practices For Lock Out/Tag Out, Verifying

High Voltage Safety Training

Recognizing Electrical Safety Hazards - Where Do They Exist?

A detailed review of critical electrical safety hazards created by energized electrical equipment:

- Insulation
- Power Cables
- Power Transformers
- Instrument Transformers
- Dealing With Fault Currents
- Disconnect Switches
- Switchgear
- Circuit Breakers

- Fuses
- Electrical Relays
- Motor Starters
- AC/DC Motors
- Capacitors
- Emergency UPS Systems

Resolving Electrical Safety Hazards

Objective: Determine the controls used to protect workers from all energy sources created in the workplace. Benefits of a safe workplace include fewer injuries, lower worker compensation costs, reduced service interruptions, greater protection of capital investment, and increased uptime. This section will provide you with a detailed blueprint that maximizes electrical safety and all the benefits it generates.

- Hierarchy Of Controls
- Management Control
- Legislation
- Electrical Code
- Purchasing Controls
- Engineering Controls
- Training
- Safety Documentation
- Rules
- Safe Work Practices
- Safe Work Procedures
- Codes Of Practice
- Operating Procedures
- Permits & Clearances
- Switching Procedures
- Physical Equipment
- Personal Protective Equipment

- Safety Equipment
- Signs And Barriers
- Equipment Protection
- Interlock
- Grounding
- Field Control
- Inspections
- Job Planning
- Pre-Job Meeting
- Hazard Identification
- Hazard Reporting
- Work Methods
- Limits Of Approach
- Switching Practices

GENERAL ELECTRICAL SAFETY REQUIREMENTS

- Review Of Standards And OH&S Regulations
- HV Electrical Qualifications
- Poles And Structures
- Obstructions On Poles
- Properly Informing Electrical Workers
- Working In Service Rooms
- Space Around Equipment
- Working With HV Test Equipment
- Insulated Aerial Devices

SWITCHING

This section of the course will instruct how to: interpret and use a single line diagram to write a switching sequence to safely isolate an electrical device for work; Validate existing operating orders and switching procedures; and Develop and maintain mandated documentation for all electrical equipment isolation and maintenance work.

- Single Line Diagrams
- Using Prints
- Electrical System Drawings
- Safety Documentation
- Isolation
- Lockout/Isolation
- Switching Workshop

WORKING ON HIGH VOLTAGE ELECTRICAL EQUIPMENT

- Isolation And Lockout
- Warning Signs

WORKING ON DE-ENERGIZED HIGH VOLTAGE POWER SYSTEMS

- Isolation And Lockout
- Person In Charge
- Switching Sequences
- Isolating Devices
- Grounding And Blocking
- Working With Multiple Authorities

WORKING CLOSE TO ENERGIZED HIGH VOLTAGE EQUIPMENT AND CONDUCTORS

- Minimum Clearances
- General Limits Of Approach
- Assurance In Writing
- Assurance Not Practicable
- When Is A Worker Specially Trained And Qualified
- Adjusted Limits Of Approach

- Emergency Work Procedures
- Authorization By Owner To Perform Work

COURSE TIMETABLE:

Start: 10 am Eastern Time
Finish: 4:30 pm Eastern Time

Contact us Today for a FREE quotation to deliver this course at your company's location.

https://www.electricityforum.com/onsite-training-rfq