



Content
Community
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High Voltage Electrical Safety Training

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

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

COURSE DATES AND TIMES

September 10, 2020

10:00 am - 4:30 pm ET

October 22, 2020

10:00 am - 4:30 pm ET

High Voltage Electrical Safety Training - This 6-Hour 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 Electrical 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 Voltage arc flash hazards, planning safe work practices and selecting proper personal protective equipment.

During this High Voltage Electrical Safety Training course you will learn to recognize and avoid 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 Electrical 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

Students Will:

- Learn to recognize all Medium Voltage/High Voltage electrical sources and hazards created by various high voltage electrical equipment and devices.
- Determine the controls used to protect workers from all energy sources created in the work place.
- Learn the dangers of how induced currents and ground gradients are produced
- Learn how to safely select, install and maintain temporary grounds for protection of the high voltage electrical worker.

Interpret and use a single line diagram to write a switching sequence to safely isolate a high voltage electrical device for work. Validate existing operating orders and switching procedures. Develop and maintain mandated documentation for all electrical equipment isolation and maintenance work.

WHO SHOULD ATTEND

- Utility workers who work around high-voltage power lines, overhead or underground cabling systems
- Substation Electricians
- Electrical Engineers
- Commercial and Industrial Electricians
- Instrumentation Mechanics
- Electrical Technicians
- Managers & Safety Professionals

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

High Voltage Electrical 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:

Both Days:

Start: 8:00 a.m.

Coffee Break: 10:00 a.m.

Lunch: 12:00 noon

Restart: 1:15 p.m.

Finish: 4:30 p.m.

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