Content Community Connection

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Electrical Safety Training

Course details: https://www.electricityforum.com/electrical-training/electrical-safety-training

Electrical Safety Training - Our 12-Hour Live Online Instructor-Led course is designed to teach electrical workers how to protect themselves from arc flash, arc blast and electrocution. Also, the course emphasizes the proper care, maintenance, inspection and utilization of the electrical systems in industrial, commercial and institutional facilities.

Our live online course covers basic electrical safety and qualified electrical worker requirements. The course will also examine the various electrical safety hazards, including equipment specific to arc flash potential accidents. We will also deal with the issue of how to properly identify and prevent possible arc flash accidents, safe work practices, including lockout/tagout and the proper selection of PPE.

The course also covers the exact safety requirements for the proper maintenance of special kinds of equipment We will also discuss how electrical management should plan and implement an electrical safety program in their own facility that complies with NFPA 70e/CSA Z462 electrical safety workplace standards.

Our arc flash and shock course was developed to ensure that students are instructed to work within the guidelines of current National (NFPA 70e and CSA Z462), State/Provincial and OSHA safety regulations. Our electrical safety training course will help employees and

companies reduce the risk of personal injury and equipment damage due to operator error by learning how to understand electrical hazards and for each person to understand their role and responsibilities. The course is also designed to ensure that, under emergency conditions, the proper steps are taken to restore power in an efficient and safe manner. This electrical safety course is CSA Z462-18 and CSA Z1001-18 compliant.

Important Definitions
Review the principles, governmental regulations, work practices and specialized equipment relating to electrical safety. A documented safe practice system is now required by OSHA 29CFR1910 Subpart R and Subpart S, which will be covered in this course.

Personal Protective Equipment
Develop a familiarity with the different types of "Personal Protective Equipment" through demonstrations of locking and tagging devices, protective clothing and specialized equipment.

Isolation and Lockout Practices
Learn proper procedures for the lockout and isolation of electrical equipment and compare them to existing site regulations and policies.

Learning Objectives

- Understand the workplace electrical safety hazards of electricity at the power system supply level.
- Material includes the review of electrical blast, electrocution, short circuits, overloads, ground faults, fires, lifting and pinching injuries.
- Effectively manage electrical hazards by following the work flow process to safely execute energized electrical work
- Learn how to complete an arc flash risk assessment and shock risk assessment as part

of an overall risk assessment procedure rap

More Electrical Safety Training Courses

Arc Flash Training - CSA Z462 -2021

NFPA 70e Arc Flash Training

OSHA 29 CFR 1910 Electrical Safety Training

Lockout Tagout Training

WHO SHOULD ATTEND

- Industrial, Commercial, Institutional Electrical Engineering and Maintenance Personnel
- Electrical personnel who work on or near energized and de-energized electrical equipment
- Electrical Safety Managers and 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

Course Outline

DAY ONE

Electrical Safety & the Qualified Electrical Worker

- Background, Responsibilities & Requirements
- Safety Standard Types: NFPA 70E Or CSA Z462
- OSHA Electrical Safety Regulations Overview
- Understanding Definitions

Arc Flash for Industrial Facilities

This course meets OSHA mandated training requirements under 29 CFR 1910.332 for safety-related work practices and 29 CFR 1910.269 for medium-voltage distribution systems.

OSHA mandated electrical safety requirements:

- OSHA 29 CFR 1910.303
- OSHA 29 CFR 1910.331-.335
- OSHA 29 CFR 1910.137
- OSHA 29 CFR 1910.269
- OSHA 29 CFR 1910.147

Students will learn the OSHA mandated special precautionary techniques and the use of electrical protective equipment. The course will also cover the use of arc protective equipment, insulated hand tools, and protective and substation grounding. Each student receives a copy of the course text that includes the OSHA regulations.

Power System Hazards

Power System Faults

Facts and Figures:

- Major Causes: Act of God, Human or Operator Error, Equipment Breakdown
- Short Circuits
- Overloads
- Fires
- Electrocution
- Important Definitions

Personal Protective Equipment

- Introduction
- Personal Body Protective Equipment
- Testingand Grounding
- Live Line Tools

Temporary Grounding

- Introduction
- Purpose
- Work Methods

Hazards of Isolated Equipment

- Induction
- Accidental Energization
- Wind
- Lightning
- Grounding Equipment for Overhead Lines - General

- Adequate Capacitance Clamps
- Adequate Capacity Cables
- Overhead Grounding Sets
- Installation of Temporary Grounds

Potential Indicating Devices

- Introducton
- Purpose

Potential Indicators:

Isolation and Switching Procedures

- Work Protection Guarantees
- Work Permit
- Work and Test Permit
- Station Guarantee

Switching Practices

Lockout Procedures

- Safe Limits of Approach: Authorized Person
- Safe Limits of Approach: Competent Person

Questions and Answers

- Volt Meters
- Clip-on Ammeter
- Clip-on Watt Meter
- Phase Rotator
- Preparation of Temporary Grounding
- Introduction
- Self-Protection
- Red Tag
- Individual Lockout
- Lock Box Method
- Sign In Method
- Removal of a Personal Safety Lock

DAY TWO

Safe Operation and Maintenance Procedures
Electrical Power Systems

- Safety Practices and Equipment Review
- Safety Equipment Review
- Safety Practices Review
- Lockout policies vs. procedures
- Importance of accurate drawings
- Commissioning vs. Maintenance Safety Guidelines
- Transformer Operation and Maintenance Safety
- Maintenance Testing Safety practices
- Oil sampling, Tapchangers, Testing
- Switchgear Operation and Maintenance Safety
- Grounding Practices and Principals
- Safety in Maintenance Testing
- Operating HV and MV Breakers and Switches

- Electrical System Safety
- Control systems, CTs and PTs
- Capacitors and Reactors
- Power Cables

Electrical Safety Program Development and Auditing

- Planning an Electrical Safety Program
- Implementation
- Complying with NFPA 70E
- Interpreting Arc Flash Analysis Reports
- Determining your PPE Requirements
- Documentation of Records

Questions and Answers

COURSE TIMETABLE

Both days:

Start: 8:00 a.m.
Coffee break: 10:00 a.m.
Lunch: 12:00 noon
Finish: 4:30 p.m.

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

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