Content Community Connection

United States
The Electricity Forum Inc.
742 Pre Emption Road
Geneva, NY 14456
Tel 289-387-1025

Canada
The Electricity Forum
1885 Clements Rd, Unit 218
Pickering, ON L1W3V4
Tel 905-686-1040
Fax 905-686-1078
Toll Free 855-824-6131

CSA Z462 Arc Flash Training ??? Electrical Safety Compliance Course

View Course Details

COURSE DATES AND TIMES

May 13, 2026
10:00 am - 4:30 pm ET
June 10, 2026
10:00 am - 4:30 pm ET
July 15, 2026
10:00 am - 4:30 pm ET
August 12, 2026
10:00 am - 4:30 pm ET

Why Arc Flash Training Matters

Students will learn to identify potential electrical hazards, establish protection boundaries, and select appropriate personal protective equipment (PPE). Upon completion, attendees will receive a certificate of completion, reinforcing their commitment to workplace safety and compliance with Canadian electrical safety regulations. **(Note:** US Electrical Workers should visit our 6-Hour **NFPA 70e Arc Flash Training** Course Page**)**

Our Arc Flash Training - CSA Z462 is designed to help electrical workers recognize, assess, and prevent arc flash hazards while ensuring full compliance with workplace electrical safety standards.

- Covers workplace electrical safety requirements under CSA Z462

- Teaches arc flash hazard identification and risk assessment techniques
- Includes guidance on establishing approach boundaries and selecting PPE
- Delivered live online by expert instructors with real-world experience

To learn more about how this course aligns with Canadian safety regulations, refer to our comprehensive overview of CSA Z462 Electrical Safety Standard.

CSA Z462 training equips participants to interpret standard requirements and apply them to real-world electrical hazards in compliance with workplace safety law.

Who needs CSA Z462 Arc Flash Training?

Arc flash safety training is the responsibility of both employers and employees when working on energized electrical equipment. This is mandated in OHS legislation, as well as due diligence clauses, electrical safety programs, the CSA Z462 standard, and various other relevant legislation.

This workplace electrical safety course covers electrical safety and discusses electrical safety topics relating to the following:

- The latest changes to arc flash standards
- arc flash protection rules and duties
- electrical safety programs, safety-related maintenance dictates
- lock out tag out procedures, safety expectations for special equipment
- arc flash boundary determination
- hazard mitigation
- shock protection and arc flash PPE specifications
- arc flash hazard labels.

Note: Employers have a legislated obligation to identify hazards, evaluate risks, and select and implement appropriate controls. This course helps companies understand their legal duties and the due diligence required to avoid conviction under provincial or federal OHS legislation or the Criminal Code of Canada.

What You Will Learn

This Arc Flash Training - CSA Z462 course provides participants with the essential knowledge and practical skills to work safely around energized electrical equipment. Through real-world examples, demonstrations, and instructor-led discussion, you will learn how to identify hazards, assess risk, and apply protective strategies in accordance with Canadian safety standards.

Key learning outcomes include:

- Understanding the principles of arc flash and shock hazards, their causes, and potential effects.
- Performing arc flash risk assessments and determining approach and protection boundaries.
- Selecting the proper personal protective equipment (PPE) for various voltage levels and tasks.
- Applying safe work procedures to prevent electrical contact, burns, and equipment damage.
- Interpreting CSA Z462 requirements and aligning them with workplace safety policies and OSHA/ESA compliance.
- Implementing an effective electrical safety program that promotes hazard awareness and accountability.

By completing this course, participants gain the competence and confidence to perform electrical work safely, protect themselves and others, and maintain compliance with the latest Canadian electrical safety standards.

Related Courses

- Electrical Safety Training Courses
- Electrical Safety For EHS Managers
- Electrical Safety Program Development

- OSHA Lockout Tagout (LOTO)
- Electrical Safety For Non-Electrical Workers
- Arc Flash Channel

WHO SHOULD ATTEND

- Industrial, Commercial, Institutional Electrical Engineering and Maintenance Personnel
- Qualified electrical workers who work on or near energized and de-energized electrical equipment
- Electrical Safety Managers and Safety Professionals
- Non-Electrical Personnel working in the vicinity of energized systems, or involved in Lock Out/Tag Out of Motor Control Sections
- Consulting Electrical Engineers
- Plant Electricians
- Instrumentation Mechanics
- Electrical Technicians

STUDENTS RECEIVE

- Arc Flash Training Certificate
- .6 Continuing Education Unit (CEU) Credits (6 Professional Development Hours)
- 100-Page Arc Flash/Electrical Safety Handbook - Value $20 (details below)
- A FREE Magazine Subscription (Value $25)

- $50 Coupon toward any future Electricity Forum event (restrictions apply)
- Course Presentations in PDF Format
- NOTE: This course DOES NOT INCLUDE A CSA Z462* Standard. Copies of CSA Z462* must be purchased from the Canadian Standards Association and brought to the course.

COURSE OUTLINE

Arc Flash Training - CSA Z462

Course Outline

Workplace Electrical Safety - Who is Responsible?

- OHS legislation
- Right to refuse unsafe work
- Legal duties relating to safe work practices

Recognizing Electrical Hazards

- Electrical Shock
- Effects of current on human beings
- Shock Protection Boundaries
- Approach to Energized electrical conductors or circuit parts operating at 50 Volts or more
- Arc Flash/ Arc Blast

- Elements and characteristics of an Arc Flash Event
- Arc Flash Hazard Analysis
- Arc Flash Protection Boundary for voltages between 50 and 600 Volts

Safety Work-Related Practices

- Worker Responsibility
- Employer Responsibility
- Electrical Safety Program
- Host and Contract Employers' Responsibilities
- Establishing an electrically safe work condition
- Energized Electrical Work Permit

Safety Maintenance Dictates

- General maintenance expectations
- Substation, switchgear assemblies, switchboards, panelboards, motor control centres and disconnect switches
- Control equipment
- Fuses and circuit breakers
- Rotating equipment
- Hazardous Locations

- Batteries and battery rooms
- Portable electric tools and equipment
- Personal Safety and Protective Equipment

Safety Specifications For Special Equipment

- Safety-related work practices for electrolytic cells
- Safety related to battery rooms or battery room enclosures
- Safety-related work practices for the use of lasers
- Safety-related work practices for power electronic equipment
- Safety-related procedures for research and development laboratories

Preparing to Work Safely

- Hazard Risk Analysis/ Task Assessment
- Assessment to Lockout or Work Energized
- Overview of Lockout Fundamentals
- Working Energized defined
- Preparing a Job Briefing and Planning Checklist
- How to plan for an Energized Electrical Work Permit
- Elements of an Energized Electrical Work Permit

Establishing An Electrically Safe Work Condition

The most effective way to prevent electrical injury is to completely remove the source of supply. This section will discuss the methods and processes of achieving an electrically safe work condition. Including the following:

Working On or Near De-energized Electrical conductors or Circuit Parts That Have Lockout Devices Applied
Principles of Lockout Tagout Execution

a. Employee Involvement
b. Training
c. Plan
d. Control of Energy
e. Identification
f. Voltage
g. Coordination

Hazardous Electrical Energy Control Procedures

a. Individual Qualified Employee Control Procedure
b. Simple Lockout Tagout Procedure
c. Complex Lockout Tagout Procedure
d. Coordination
e. Training and Retraining

LOTO Equipment

a. Lock Application
b. Lockout Tagout Device
c. Lock out Device
d. Tagout Device
e. Electrical Circuit Interlocks
f. Control Devices
g. Procedures
h. Planning

Determining Safe Approach Distance

- Determining Safe Approach Distance

- Definitions of Boundaries and Spaces

- Limits of Approach
- Shock Hazard Analysis
- Shock Protection Boundaries
- Limited Approach Boundary
- Restricted Approach Boundary
- Prohibited Approach Boundary
- Hazard Boundary

Shock Hazard Boundaries

- Limits of Approach
- Preparation for Approach
- Qualified Persons, Safe Approach Distance
- Electrical Conductors or Circuit Parts for Shock Protection
- Safe Working Distances from Energized Conductors

Basic Method For Determining Arc Flash Hazard Assessment

- Breakdown and characteristics of the 4 Hazard Risk Categories - NEW
- Selection of Personal Protective Equipment for Various Tasks
- Hazard/ Risk Category Classification

- Protective Clothing and Personal Protective Equipment (PPE)
- Protective Clothing Characteristics
- Factors in Selection of Protective Clothing and Equipment
- Two Category, Flame Resistant (HRC/ Hazard Risk Category) Clothing System - NEW
- Layering Protective Clothing and Total System Arc Rating
- Arc Rating, Arc Thermal Performance Value (ATPV) and Break-open Threshold Energy (EBT)
- Brief overview of applicable ASTM standards for Protective Clothing and PPE

Safety-related Electrical Maintenance

- Introduction
- Frequency of Maintenance Tests
- Maintaining Electrical Drawings
- Maintenance Standards
- Electrical Hazard Labels, Arc Flash and Shock Labelling
- General
- Canadian Electrical Code Rule 2-306 Shock and Arc Flash Warning Label
- Arc Flash Label Example
- Detailed Arc Flash Hazard Analysis Label - NEW

NEW ANNEX: Prevention of Shock Injuries from Electrostatic Discharges

Prevention of Shock Injuries from Electrostatic Discharges describes workplace scenarios, such as high-speed network operations, in which the potential for shock injury from electrostatic discharge exists. This Annex identifies methods to prevent, control, and protect personnel from injury.

NEW: DC Safety-related Work Practices

The latest edition of CSA Z462 provides considerably more information on safety-related practices for work on and around DC systems. A new Shock Protection Boundary Table for DC systems and an arc flash energy calculation method for DC systems have been added. Extensive revisions have been made to address safety-related practices for batteries, battery rooms, and battery enclosures. Both have high value for anyone working on or around DC equipment. This new additional information is essential for working on DC systems.

Arc Flash Solutions

- Arc Flash Study Analysis and Implementation
- Power System Upgrades
- Arc Resistant Switchgear
- Circuit Breaker Retrofitting
- Remote Breaker Racking
- Regular Maintenance and Testing
- Arc-Rated Power Switchgear
- Light-sensing trip breakers
- GE Arc Vault Protection System

CSA Z462 PPE Clothing Specifications

- **Arc-Rated Clothing Testing Standards**
- How To Establish A PPE Program In Your Company
- The evolution of Arc Resistant (AR or HRC) fabrics
- Changes in Clothing Specifications in Electrical Work - New
- The various types of HRC fabrics that are available in the marketplace
- HRC fabrics and the effects of undergarments
- Review the technology and effectiveness of inherently flame-resistant fibres vs chemically treated fabrics.
- Developing a PPE Program in Your Company
- Assessing the correct Arc Flash hazard and choosing the right level of protective clothing
- Company training and worker compliance
- Documentation

COURSE SCHEDULE:

Start: 10 a.m. Eastern Time
Finish: 4:30 p.m. Eastern Time

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

Request Quote