

# ELECTRICAL SAFETY SAFE WORK PRACTICE AWARENESS DURATION: 1 DAY - 8 HOURS

LIVE Live Online Training Single Class Capacity: 15 Onsite – In Class Training Single Class Capacity: 25

A great awareness-level course, offered in both an online live virtual format for remote students and an onsite, in-class option to make it easier for your team to attend.

This course is designed and intended for the non-electrical worker and emphasizes the role of the "unqualified electrical worker." These persons often operate switches and breakers, perform basic checks, operate electrical power tools, handle extension cords or be in the vicinity of exposed energized electrical work. Understanding what tasks they can and cannot perform on electrical equipment safely is critical.

Operators, supervisors, managers and HSE personnel find themselves exposed to certain electrical hazards; therefore, they are required to be trained in any number of 70E items as applicable for their work task.

### WHAT THIS COURSE COVERS

- OSHA & NFPA requirements for electrical safety in the workplace
- Unqualified person techniques to protect themselves by identifying the hazards and effects of electricity.
- · Protection boundaries set up during electrical work
- · Safe operation techniques for electrical equipment
- Basics of shock protective goods and arc rated PPE and their uses
- Electrical incidents, basics of emergency response and contact release of a shock victim

#### COURSE OUTCOMES

- Understand OSHA & NFPA requirements for electrical safety in the workplace.
- Review how the unqualified persons can protect themselves by identifying the hazards and effects of electricity.
- Examine the protection boundaries set up during electrical work.
- Learn proper safe operation techniques for electrical equipment.
- Comprehend the basics of shock protective goods and arc rated PPE and their uses.
- Recognize what do during an electrical incident, basic emergency response and contact release of a shock victim.

#### WHO SHOULD TAKE THIS?

- Operators
- Instrumentation Technicians (not exposed to voltages >50v)
- IT, SCADA & other Control Technicians
- Supervisors, Managers & HES personnel
- Engineers



Every NTT course is eligible for CEUs (or Continuing Education Units) with your governing board approval or your states approval.

# Training

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# COURSE AGENDA

1. Electrical Safety and Your Electrical Safety Program

- Review of the latest data on electrical safety
- Recognizing who is a "Qualified Person," and what they may and may not do.
- Who is an "Unqualified Person," and what task they may and may not perform
- Important definitions
- Identifying NFPA required elements for company electrical safety programs
- Training requirements
- Review OSHA extension cord and GFCI requirements for safety

# 2. The Potential Hazards Faced by Electrical Workers

- Review of shock, arc flash and incident energy hazards
- The effects of shock and arc flash
- Learning methods of shock and arc flash mitigation

# **3. Electrical Safe Work Practices and Procedures**

- Implementing a Risk Assessment approach as opposed to unquestioned compliance
- Importance of housekeeping, maintenance for the normal operation of equipment
- Safe work techniques for the operation of electrical equipment
- Interpreting Arc Flash Equipment Labels
- Understanding shock protection and arc flash boundaries
- New Job Safety Planning requirements: Estimating likelihood and severity of hazards

## 4. Electrical Personal Protective Equipment

- Review the basic types of electrical PPE and how they protect
- When electrical PPE is needed by the unqualified worker
- Selection of electrical PPE using both the "incident energy method" and the "PPE category method"
- Shock protection glove selection
- Review of inspection and usage requirements for electrical PPE

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## COURSE AGENDA (Continued)

### 5. Normal Operation of Electrical Equipment

- Understanding the new inspection requirement for electrical equipment
- Practical examples of using the six requirements to determine if electrical equipment can be operated normally of if additional protection is required.

# 6. Establishing the Electrically Safe Work Condition

- Eight steps for establishing an electrically safe work condition
- Verifying the absence of voltage (test before touch)
- Voltage meter inspection
- Appling personal protective grounds

#### 7. Electrical Emergency Response

- Requirements for Electrical Emergency Response Training
- Potential severity of electrical incidents
- How to safely perform contact release of a shock victim
- 8. Summary questions and final quiz



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# **EQUIPMENT DETAILS**

#### **CLIENT PROVIDED COMPUTER REQUIREMENTS (Live Online Training only)**

- Internet Access through a computer (laptop or desktop)
- Computer Speakers
- Computer Microphone
- Computer Web Camera
- · Ability to download and view files online
- Browser Requirements for NTT's online portal are as follows:
  - Chrome 78 and 79
  - Firefox 71 and 72 (Extended Releases are not supported\*)
  - Edge 44 (Windows only)
  - Edge 79
  - Safari 12 and 13 (Macintosh only)

#### NTT PROVIDED STUDENT MATERIALS

- Text: NTT's Arc Flash Electrical Safety [based on NFPA 70E®] Workbook
- Job Aid: NTT's Electrical Safety Job Aid for the 2018 edition
- · Consumables: notepad, pens/highlighters, tabs



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