Safety

Plant Floor Arc Flash/LOTO/Confined Space Safety Course Description

COURSE AGENDA

Day 1

- National OSHA Regulations (Standards – 29 CFR)
- The Control of Hazardous Energy (Lock-out / Tag-out) – 1910.147
- Scope, Application and Purpose
- Energy Control Procedure
- Lock-out/Tag-out Devices
- Periodic Inspection

Day 2

- Confined Space Awareness and Identification
- Key Policy
- Definitions
- Responsibility
- General Requirements
- Safety Requirements
- Entry Procedure
- Confined Space Permit Form

Day 3

- Arc Flash Ruling
- Operational Voltage
- Arc Flash Hazard
- Flash Hazard Statistics
- Protecting the Electrical Worker
- Applicable Standards
- Arc Flash Hazard Boundary Terms
- Energized Work Permit
- Article 130 Tables
- Personal Protective Equipment

Day 4

- Arc Flash Calculations (NFPA 70E)
- PPE Calculations
- Maintenance
- Arc Flash Hazard Study
- Mitigation
- Over-current Protective Devices
- Arc Flash Considerations

COURSE NUMBER: SAF-SFT123

Course Purpose

This course delves into three significant safety areas most important to manufacturing applications and employee safety. Three safety areas educating the participant in lock-out/tag-out implementation, confined space awareness, and arc-flash awareness are presented separately during the course. Proper lock-out and tag-out procedures using the OSHA Regulations (Standards - 29 CFR) on how equipment energy sources should be secured and disabled for safe entry will be learned. Proper procedures for making entry into Permit Required Confined Spaces preparing the participant to operate in the capacity of Entrant, Attendant or Entry Supervisor during confined space operations will be learned. Participants will become familiar with CFR 1910.146 and how to properly employ the permit program. This course of instruction is required by OSHA (29 CFR 1910.146) before an employee can enter a Permit Required Confined Space. An in-depth understanding of the current requirements for electrical safety and arc-flash hazard awareness using the NFPA 70E will be learned. A complete presentation of the standard will be provided. Examples and exercises covering calculation methods and tables used for establishing arc-flash boundaries and proper personal protective equipment (PPE) selection will be learned.

Course Purpose (continued)

This course will present the following major topics:

- The Control of Hazardous Energy (Lock-out / Tag-out) – 1910.147
- Standard Title: The control of hazardous energy (lock-out/tag-out)
- SubPart Number: J
- SubPart Title: General Environmental Controls
- Regulatory overview
- What is a permit-required confined space?
- Permit-required confined space hazards
- Signs and symptoms of exposure
- Use of equipment
- Maintaining an accurate count
- Company specified program review
- NFPA 70E Electrical Safety Requirements
- Safe Electrical Practices
- Calculating Flash Protection Boundary
- Personnel Protective Equipment

Who Should Attend

Individuals responsible for ensuring compliance with, developing training on, or supervising employees who are required to access or be exposed to energized and de-energized electrical equipment, confined spaces, and, in accordance with NFPA 70E, work in areas designated by the flash protection boundary should attend this course.

Prerequisites

To successfully complete this course, the following prerequisites are required:

- Working knowledge of electricity
- Proficiency in Student's Respective Classification

  OR
- Enrolled in an Up-grader/Apprentice Program

Student Materials

To enhance and facilitate your learning experience, the following materials are provided as part of the course package:

- *Student Manual,* which contains the topical outlines and problem-solving exercises.
- *NFPA 70E®: Standard for Electrical Safety in the Workplace®,* which provides key concepts, definitions and certification requirements.

Hands-On Practice

Throughout this course, you will have the opportunity to practice the skills you have learned through class interaction and observational exercises. The interactive exercises focus on OSHA regulations, energy control safe practice procedures, permit acquisition and adherence, exposure signs and symptoms, record requirements, awareness, safe work practices, maintenance requirements, calculation methods, boundaries, and regulations learned during the lessons.

Course Length

This is a four-day course.

Course Number

The course number is SAF-SFT123.

IACET CEUs

CEUs Awarded: 2.8

To Register

To register for this or any other Rockwell Automation training course, contact your local authorized Allen-Bradley Distributor or your local Sales/Support office for a complete listing of courses, descriptions, prices, and schedules.

You can also access course information via the Web at http://www.rockwellautomation.com/training

www.rockwellautomation.com

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GMST10-PP432A-EN-P