

Safety

Lock-out / Tag-out Implementation and Arc Flash Awareness Course Description

COURSE AGENDA

Day 1

- Arc Flash Ruling
- Operational voltage
- Arc Flash Hazard
- Flash hazard Statistics
- Protecting the Electrical Worker
 - Company Safety Programs
 - Electrical Safety Program
 - Government Regulations
 - OSHA 29 CFR 1910.333(a)(1)
 - OSHA 29 CFR 1910.335
 - OSHA 29 CFR 1910.132(d)(1)
 - Enforcement
- Applicable Standards
 - 2002 NEC Article 110.16 Flash Protection
 - NFPA 70E® 2009 110.8(A)
 - Electronically Safe Work Conditions
 - Qualified Person
 - NFPA 70E® 2009 130.3
- Arc Flash Hazard Boundary Terms
 - Flash Protection, Limited, Restricted and Prohibited Approach

Day 2

- Arc Flash Calculations Review (NFPA 70E®)
 - Flash Protection Boundary Calculation
 - Arcing Current Calculations
 - Incident Energy Calculations
 - Energy Calculation
 - Brief introduction of 1584 - IEEE Guide and methodology
- PPE Selections (NFPA 70E®)
 - PPE Selection based on Article 130 tables
 - Introduction to PPE Selection based on incident energy calculations
 - Calculations based on NFPA 70E® Methods
- Maintenance
- Arc Flash Hazard Study
- Over-current Protective Devices
- Arc Flash Considerations



COURSE NUMBER: SAF-SFT117

Course Purpose

The purpose of this course is to provide your plant floor personnel and contractors with proper lock-out and tag-out (LOTO) procedures with electrical hazard awareness safety training as required by OSHA and NFPA 70E®. The main objective of this program is to increase employee awareness of proper LOTO procedures, electric shock, ARC Flash, and ARC Blast hazards and to bring your training program into compliance with OSHA and NFPA 70E® mandated electrical training and accident avoidance.

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
- Recognizing the steps needed to work safely on or near live parts
- ARC Flash
- Analyzing work tasks and selecting the appropriate personal protective equipment (PPE)

COURSE AGENDA

Day 2 continued

- 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
- Safety-Related Work Practices
- Safety-Related Maintenance Requirements
- Safety Requirements for Special Equipment
- Installation Safety Requirements

Course Purpose (continued)

- NFPA 70E®
- Identifying electrical safety hazards and planning protective schemes and techniques to address each hazard
- Knowledge of safety requirements employers are legally required to provide
- Determining the hazard risk category classification of a given task
- Locating specific requirements for energizing and de-energizing power circuits
- Explaining the intent and limitations of PPE
- Locating a simplified approach to assure adequate PPE for diverse tasks
- Employing specific steps to be taken to ensure an electrically safe work condition
- Creating lockout/tag out procedures applicable to any given facility or activity

Who Should Attend

Industrial and commercial electrical maintenance personnel, engineers, supervisors and safety personnel who work on or near energized and de-energized electrical equipment should attend this course.

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Power, Control and Information Solutions

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation SA/NV, Vorstlaan/Boulevard du Souverain 36, 1170 Brussels, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

Prerequisites

To successfully complete this course, the following prerequisite is necessary:

- Working knowledge of electricity

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®, 2009 Edition*, 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 safe work practices, maintenance requirements, and regulations learned during the lessons.

Course Length

This is a two-day course.

Course Number

The course number is SAF-SFT117.

IACET CEUs

CEUs Awarded: 1.4

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>

