

# Safety

NFPA 70E 2018 – Arc Flash Awareness



## Course Number

SAF-SFT10618

## Course Purpose

The purpose of this course is to provide the student with an overall understanding of the current requirements of NFPA 70E®. A complete review of the standard will be provided, along with a review of the tables used to determine the Limited and Restricted Approach Boundaries and tables and calculation methods used to determine the Arc Flash Boundary and for determining proper personal protective equipment (PPE).

This course will present the following major topics:

- Review of Work Practices required by NFPA 70E Standard for Electrical Safety in the Workplace
- Determining Limited and Restricted Approach Boundaries
- Determining/Calculating the Arc Flash Boundary
- Selection of Personal Protective Equipment

## COURSE AGENDA

### DAY 1

- Course Introduction
- OSHA Final Rule
- Arc Flash Hazards, Statistics, and Considerations
- Protecting the Electrical Worker
  - Safety-Related Work Practices
  - Electrical Safety Program
  - OSHA General Duty Clause
  - OSHA 29 CFR 1910 Subpart S Requirements
  - NFPA 70E 2018 Requirements
  - 2017 NEC Article 110.16 Arc Flash Hazard Warning
- Electrical Safety Terminology
  - Arc Flash Boundary
  - Arc Rating
  - Electrically Safe Work Condition
  - Incident Energy
  - Overcurrent Protective Devices
  - Shock Protection (Limited and Restricted Approach) Boundaries
  - Qualified Person
- Arc Flash Calculations Overview (NFPA 70E 2018)
  - PPE Selection Based on Article 130 Tables
  - Arc Flash Boundary Calculation
  - Introduction to PPE Selection Based on Incident Energy Calculations

## WHO SHOULD ATTEND

Individuals that require access to, or will be exposed to the work area designated by the arc flash or limited approach boundaries should attend this course.

## PREREQUISITES

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

- Familiarity with basic electricity
- Proficiency in student's respective classification

OR

- Enrolled in an up-grader/apprentice program

## STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual
  - Includes the key concepts, definitions, examples, and activities presented in this course
- Lab Book
  - Provides learning activities and hands-on practice. Solutions are included after each exercise for immediate feedback.
- NFPA 70E 2018 Standard for Electrical Safety in the Workplace

## 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 awareness, safe work practices, maintenance requirements, calculation methods, boundaries, and regulations learned during the lessons.

## COURSE LENGTH

This is one-day course.

## 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>

To be respectful of the environment, Rockwell Automation is transitioning some of its training courses to a paperless format. Students are asked to complete downloads and bring personal devices to these classes. A full list of digital/paperless courses is currently available through your local distributor.

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