



AUTOMATION | ELECTRICAL
DATA COMM & SECURITY
INDUSTRIAL & SAFETY
FLUID POWER

INDUSTRIAL & SAFETY

WED. OCT. 10
8 AM - 4 PM

SMC JOPLIN
923 W. 4TH ST.
JOPLIN, MO 64801

NFPA 70E 2018

TRAINING EVENT

This course is designed for electrical engineers, safety managers, electricians, electrical contractors, plant managers, facility maintenance personnel, electrical inspectors, risk managers, and project managers. In this course, you will learn 2018 NFPA 70E fundamentals and ARC Flash Electrical Safety.

We will review the NFPA 70E 2018 updates and the new 2018 standards. Students will learn the best practices for Electrical Safe Work, Electrical Hazards, Safety Maintenance Practices. In this course, you will cover:

- Explain the relationship known as Ohm's law.
- Explain Article 100 definitions
- Cover consensus standards : ASTM, IEEE, ANSI
- Describe the relationship between voltage, current, and resistance in an electrical system.
- Identify the three main electrical hazards and explain their significance.
- Explain the significance of fault current in electrical systems and its relationship to electrical safety.
- Identify several types of electrical hazard controls and describe their benefits and limitations.

Upon completion of this course, you will receive a certificate of completion to remain in compliance.



COST

\$550 Per Student
Includes lunch



REGISTER

To register, contact Kathy Abraham
kabraham@smcelectric.com by Wednesday, October 3

COURSE AGENDA

SCHEDULE

- Introduction
- How Does Electricity Act
- Types of Electrical Hazards
- Shock
- Difference of Potential
- How is an Electrical Shock Received?
- Dangers of Electrical Shock
- Arc
- Determining the Degree of Arc Hazards
- Arc Faults
- Bolted Faults
- Warning Label
- Blast
- Incident Energy
- NFPA70E Hazard Categories
- Test Instruments & Equipment
- Safeguards for Personal Protection
 - (1): Use of Protective Equipment
 - (2): Types of PPE
 - (3): Insulated Tools
 - (4): Meter safety and usage
 - (5) Meter transient protection
 - (6) Usage of temporary grounding 2
- Arc Flash analysis
 - What is it?
 - Basics of how it is calculated
- Important considerations
- Methods to reduce calorie ratings
- Safe Work Practices
- Establishing electrically safe work conditions
- Procedures
- Personal Protection
- Approach Boundaries
- Flash Approach Boundary
- Selection of Personal Protective Equipment
- Personal Protective Equipment Required For Various Tasks
- Protective Clothing & Personal Protective Equipment
- Simplified Two-Category, Arc Rated Clothing System
- Testing and Inspection Intervals
- Warning Label
- Discuss critical information required
- Energized Work Permit
- Procedures for utilizing this permit and when they are allowed
- Discuss the hazards associated with motor control centers and recommend preventive measures.
- Discuss the hazards associated with fuses, switches, and circuit breakers and recommend preventive measures.
- Discuss the safety-related maintenance practices for installed equipment and systems.