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

INDUSTRIAL & SAFETY

SMC SM

OUR KNOWLEDGE IS YOUR POWER

WED. JAN 30 8 AM - 4:30 PM

SMC CAPE GIRARDEAU 2333 RUSMAR ST. CAPE GIRARDEAU, MO 63703

NFPA 70E ARC FLASH TRAINING

TRAINING EVENT

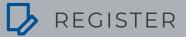
This course is designed for electrical engineers, safety managers, electricians, electrical contractors, plant managers, facility maintenance personnel, electrical inspectors, risk managers, and project managers. In this course, you will learn 2018 NFPA 70E fundamentals.

We will review the NFPA 70E 2018 updates and comparisons to 2015 standards. Students will learn the best practices for Electrical Safe Work, Electrical Hazards, Safety Maintenance Practices. In this course, you will cover:

- Establishing electrical safe work conditions
- 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.
- \cdot Identify several types of electrical hazard controls and describe their benefits and limitations.
- Review labeling requirements for electrical equipment
- Selection of proper PPE
- Test instruments procedures for safe use
- · Energized electrical work permits
- Use of temporary grounding

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





To register, contact Erica Masterson at EMasterson@smcelectric.com by Tuesday, Jan. 29.

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
- \cdot Testing and Inspection Intervals
- Warning Label
- \cdot 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