



Arc Flash Safety Course Outline



Prerequisites: This course shall have no formal pre-requisite.

Course Length: 2-3 hours – Course length shall vary depending on the number of delegates.
Total course time includes breaks.

Class Size: The maximum number of delegates that may be trained and tested per instructor shall be thirty-five (35) in the classroom session.

Course Objective

- Recognize arc flash hazards and how to prevent them
- Discuss regulations and standards, which may differ from employer to employer
- Explain employer versus employee responsibilities
- Describe electrical job briefing and hazard assessment best practices
- Identify protection and safety methods such as personal protective equipment (PPE) and emergency response

Course Design

- Power Point© / Lecture / Audio Video / Visual Aids

Successful Course Completion

- Requires a minimum score of 75% or better, if applicable.
- Delegates will have no more than thirty (30) minutes to complete the exam.
- Grades shall be calculated by dividing the number of questions answered correctly by the total number of exam questions.
- Successful completion of all practical sessions is mandatory

Course Content Summary

- Classroom

Breaks: 10 minutes (approximately every hour)

Lunch: 1 Hour (if applicable)

Course Outline

Understanding Arc Flash

- What is an Arc Flash?
- Statistics
- Dangers of Arc Flash
 - Heat
 - Pressure
 - Shrapnel
 - Noise



Arc Flash Safety Course Outline



- Electricity
- Arc Flash Hazard Sources
- Video

Protecting Employees

- Steps for Protecting Workers
 - Industry Standards
- Employer Requirements
 - OSHA
 - NFPA
- Electrical Safety Program
- Assess the Work Environment
- Determine Hazard Potential
- Hierarchy of Controls
- Reduce Exposure
- Equipment Labeling
- Set Boundaries
 - Arc Flash Boundary
 - Arc Flash Boundary Video

Assessing Arc Flash Hazards

- Purpose of Arc Flash Risk Assessment
- NFPA 70E Article 130: Work Involving Electrical Hazards
- NFPA 70E Table 130.5(C)
- Assessing Hazards for Arc Flash PPE
- Arc Flash PPE Determination Methods
 - Arc Flash PPE – Category Method
 - Arc Flash PPE – Incident Energy Analysis Method

Electrical Protective Equipment

- Personal & Other Protective Equipment
- PPE Overview
- Care of Equipment
- Arc Flash PPE Video
- Arc Flash Protective Equipment
 - Arc Flash Suits
 - Head Protection
 - Face Protection
 - Hand Protection
 - Foot Protection
- Standards for PPE
 - Table 130.7(C)(14)



Arc Flash Safety Course Outline



- Arc Flash PPE Categories
 - Table 130.7(C)(15)(c)
 - Category 1
 - Category 2
 - Category 3
 - Category 4
- Other Protective Equipment
 - Insulated Tools
 - Barriers

Emergency Response

- Arc Flash Injury
 - Initial Response
 - First Aid
 - Burns
 - Effects of Incident

Training Center Provided Material

- Course Materials

Delegate Requirements

- None

Reference Material / Documents

- OSHA 29 CFR 1910, Subpart S
- NFPA 70E, Standard for Electrical Safety Requirements for Employee Workplaces