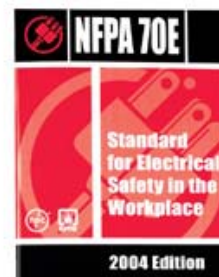




## Electrical Safety

## Electrical Safety - NFPA 70E - 1/2 Day

Train your staff with this shorter 1/2 Day electrical safety awareness class that takes you through the steps necessary to understand the requirements of NFPA 70E. The 1/2 day program provides electrical safety and arc flash awareness training but without the in depth problem solving found in the 1 Day course. Learn about the shock hazard and flash hazard analysis requirements as well as the purpose of energized work permits. See how to properly select Personal Protective Equipment based on the NFPA 70E Hazard/Risk Categories and how to comply with approach limits including the flash protection boundary. As a member of the IEEE 1584 Working Group "Guide for Performing Arc Flash Hazard Calculations", Jim provides some of his "insider's views" about arc flash and electrical safety. Many companies use this program to have 2 separate 1/2 day sessions to accommodate work schedules. ▪ 1/2 Day - 0.4 CEUs /4 PDHs



### Course Agenda

#### INTRODUCTION

#### HUMAN EFFECTS

Physiological Effects, Tissue Damage, Internal Organ Damage, Burns Fibrillation, "Curable" 2nd Degree Burn Requirements, Arc Blast Pressure, Sound Pressure, Incident Energy and 1.2 Calories/cm<sup>2</sup>

#### CODES AND STANDARDS

OSHA 29 CFR - Part 1910, Subpart S, NFPA 70, National Electrical Code®, NFPA 70E, Standard for Electrical Safety in the Workplace, IEEE Standard 1584™, Guide for Arc Flash Hazard Analysis, Legal Requirements, Liability

#### CATEGORIES OF ELECTRICAL HAZARDS

Electric Shock, Arc Flash, Arc Blast

#### ELECTRICAL CIRCUIT DYNAMICS

Short Circuit Current, Overcurrent Device Clearing Time, Impact of Long Clearing Times

#### QUALIFIED PERSON

NFPA 70E Definition, Trained, Knowledgeable, Understands Hazards, Training Requirements

#### APPROACH BOUNDARIES - SHOCK PROTECTION

Limited, Restricted, Prohibited Approach

#### NFPA 70E REQUIREMENTS FOR LIVE WORK

Performing the Shock and Flash Hazard Analysis

#### ENERGIZED WORK PERMIT

Purpose of Permit, Data Required, Approvals

#### APPROACH BOUNDARIES - FLASH PROTECTION

4 Ft. Boundary, 5,000 Amp-Seconds Criteria

#### HAZARD/RISK CATEGORY CLASSIFICATION

Use of NFPA 70E Table 130.7(C)(9)(a), Limitations

#### USE OF MATRIX FOR PPE SELECTION

Table 130.7(C)(10), Defining the Required PPE, Category by cal/cm<sup>2</sup> Class 0, 1, 2, 3, 4 Requirements

#### PERSONAL PROTECTIVE EQUIPMENT PPE

Protective Clothing, Flash Suits, Face Protection, Hand Protection, Foot Protection, Limitations

#### THE ELECTRICAL SAFETY PROGRAM

Implementing Electrical Safety Practices and Procedures, Sample Problems Using the Tables. Simplify the Program!

#### ARC FLASH STUDY - OVERVIEW

What is an Arc Flash Study, Understanding the Labels, Selecting PPE Based on a Study, Boundaries

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For more information contact:

T<sub>2</sub>G Technical Training Group® at 800-874-8883.

See sample videos of Jim's teaching style at:

[www.brainfiller.com](http://www.brainfiller.com)