



New Hampshire/
Vermont Chapter

ABC EDUCATION

MEDIUM TO LOW VOLTAGE (<1000v) QUALIFIED EMPLOYEE TRAINING

Wednesday Decemerr 22, 2014

8:00 AM - 4:30 PM

ABC Chapter Training Center, Concord NH and On-line

\$250 per person / ABC Members

\$375 per person / Non ABC Members

All students will receive a copy of the NFPA 70E manual (a \$55 value)

INCLUDES: Continental Breakfast, Lunch, and All Course Materials

This is not simply "Arc Flash Awareness" ... this is TRAINING

TOPICS TO BE COVERED:

- NFPA 70E and OSHA Standards
- Purpose of the Standards
- Nature of Shock and Flash Hazards
- Justifying Work On / Near Live Parts and Using Permits
- Requirements for Shock and Flash Analyses
- Establishing Shock and Flash Protection Boundaries
- Selection of Proper Protective Equipment and Tools
- Creating and Maintaining Approach Boundaries

INSTRUCTOR: Mark R. Hilbert - M.R. Hilbert Electrical Inspections & Training , Wolfboro, NH Mark brings a unique blend of technical and hands on experience to all seminars offered by M.R. Hilbert. Mark began his career as a construction electrician in 1973 and currently holds a master electricians license in two states. He was Chief Electrical Inspector for the State of NH from July of 2001 until he retired on Dec. 31, 2010. Before this, Mark was a self-employed electrical contractor located in Southern NH for over 15 years and worked as a maintenance electrician in general industry for over 7 years prior to starting his own business. He has brought the message of electrical safety to the nation as an instructor of NFPA 70E, Electrical Safety in the Workplace, for the past 12 years.

SUMMARY:

This 8-hour intensive course will take you through NFPA 70E -2012 "Standard for Electrical Safety in the Workplace", applicable OSHA Electrical Standards and industry best practices. Be able to recognize, analyze and manage electrical shock, and arc flash hazards. Be able to properly set up the work zone boundaries, select appropriate PPE and tools and establish "An Electrically Safe Work Condition".

- Instructions on how to Comply with NFPA 70E - 2012
- Familiarization with NFPA 70E requirements
- Training manual containing over 30 pages
- Understanding of PPE selection

WHO SHOULD ATTEND: This course is for "Qualified Employees" and any employee whose work area may contain or be in close proximity to exposed live circuits or parts in excess of 50v or greater. Any General contractors (controlling employers), electrical contractors, electricians, facilities manager, HVAC and mechanical contractors, maintenance personnel should also attend because you are accountable/responsible/liable under either OSHA, NH State Law or other jurisdictions.



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REGISTRATION - Medium to Low Voltage

ABC Chapter Training Center, Concord NH

Wednesday Dec 22, 2014 / 8:00 - 4:30 PM

\$250 pp Members / \$375 pp Non-Members - Payable to Associated Builders & Contractors NH/VT

DIRECTIONS

ABC NH/VT TRAINING CENTER / 58 CHENELL DRIVE, CONCORD NH / 603-226-4789

FROM I-93 IN CONCORD TAKE EXIT 15 E TO I-393 EAST TAKE EXIT 3 TO ROUTE 106 AND HEAD RIGHT ONTO 106 SOUTH; PROCEED PAST STEEPLEGATE MALL THE NEW ABC NH/VT CHAPTER OFFICE & TRAINING CENTER IS ON THE RIGHT AT THE CORNER OF ROUTE 106 AND CHENELL DRIVE. TRAINING CENTER PARKING & ENTRANCE AT REAR OF BUILDING

COMPANY _____

CONTACT _____

PHONE _____

NAME / EMAIL (S) _____

DISCLAIMER: Certificate does not fulfill all requirements of NFPA 70E 110.6(D)(1) for "Qualified Person". A "certificate of completion" recognizes that an individual has successfully met the requisites of the program, including attainment of the training programs learning objectives. It is issued after an individual has successfully completed the required training program and has obtained a passing score on an examination. The examination is based solely on the educational content of the seminar and will take the form of an open book examination. A hands-on performance test must be completed to meet the criteria for a "Qualified Person" which is not pat of this class but is something the students can arrange with the instructor to complete at a later date.

Upon successful completion you should be able to:

- Understand the interaction between NFPA 70E and OSHA requirements
- Define electrical safety hazards and how to protect against shock, electrocution and arc flash
- Identify safety policies and procedures employers are legally required to provide for their workers
- Describe the safety procedures needed to work safely while exposed to live circuits
- Determine hazardous risk categories for many common workplace tasks and conditions
- Recognize the intent and limitations of personal protective equipment
- Describe requirements for energizing and de-energizing power circuits
- Identify the elements of an Electrical Hazard Analysis
- Use NFPA 70E Tables 130.7 C15 and C16 to determine the Hazard Risk Category for various tasks

- Identify the hazards to personnel working with equipment, and employee responsibilities

NFPA 70E and Arc Flash?

NFPA 70E Section 130.5(B) requires that an arc flash hazard analysis "shall determine, and the employer shall document, the incident energy exposure of the worker (in calories per square centimeter). The incident energy exposure level shall be based on the working distance of the employee's face and chest areas from a prospective arc source for the specific task to be performed. It further states that "...Arc rated clothing and other personal protective equipment (PPE) shall be used by the employee based on the incident energy exposure associated with the specific task." NFPA 70E also requires determining the arc flash boundary, which is the distance from a potential arc source where the incident energy is 1.2 cal/cm². This value is considered to be the point at which the onset of a second-degree burn occurs.

What Does OSHA Say About Arc Flash?

According to OSHA 1910.132(d) The employer is responsible to assess the hazards in the work place, select, have, and use the correct Personal Protective Equipment (PPE) and document the assessment. The use of NFPA 70E and other related industry consensus standards has been used to demonstrate whether an employer acted reasonably when there is a possible OSHA enforcement action taken. So although NFPA 70E is not directly part of OSHA standards, it can be used as evidence of whether an employer acted reasonably in complying with OSHA standards and addressing "recognized hazards".