



## Low Voltage Qualified – Refresher

4-Hour Course

<b>PREREQUISITE</b>	Completion of e-Hazard <i>Low Voltage Qualified</i> 8-hour course
<b>OVERVIEW</b>	This class keeps attendees current on the information gained in the standard Low Voltage Qualified class. In addition to a review of standard electrical safety principles, attendees are brought up to date on the changes in the latest edition of the <i>NFPA 70E Standard for Electrical Safety in the Workplace</i> , which is revised every three years.
<b>REFERENCES</b>	<i>Current NFPA 70E Standard, OSHA Regulations (as applicable)</i>
<b>MATERIALS</b>	<i>e-Hazard <u>Low Voltage Qualified Refresher</u> Workbook</i>

- 1. Electrical Safety Facts**
- 2. Electrical Related Regulations & Standards**
  - Applicable: NFPA 70E/OSHA
  - How Standards Are Used
  - Key Definitions/Issues
- 3. Shock Hazards & Protection Strategies**
  - Understanding Shock Hazards for AC and DC
  - Variables Impacting Hazard
  - Protection Boundaries
  - Voltage Rated Gloves and Other Shock PPE
  - Rated Insulated Tools and Other Equipment
- 4. Arc Flash Hazards & Protection Strategies**
  - Causes/Types
  - Arc Blast
  - Arc Flash Boundaries
  - Practical Application
- 5. Arc Rated Personal Protective Equipment**
  - Overview
  - Protecting Head, Hands and Feet
  - PPE Programs: Categories and Levels
  - Environmental Considerations
  - PPE Guidelines and Maintenance
- 6. Risk Reduction Strategies**
  - Safety by Design
  - Supplemental Equipment
  - Engineering Solutions
- 7. Job Planning**
  - Elements of Safety Planning
  - Job Briefing
  - Energized Electrical Work Permit
- 8. Risk Assessment**
  - Risk Factors: Constant and Variable
  - Methods for Arc Flash Hazard
  - Labeling
  - Steps to Determine Protective Measures
  - Task Assessment Example
- 9. Safety Related Work Practices**
  - “Electrically Safe Work Condition”
  - Identifying and Securing Boundaries
  - Tools and Equipment
  - Best Practices for Lock Out/Tag Out, Verifying De-energization
  - Situational Conditions (Overhead/Underground)
  - Special Equipment
  - Training
  - Administrative Guidelines
  - Recognizing Hazards and Poor Work Practices