

COURSE OUTLINE



Low Voltage Qualified

8-Hour Course

OVERVIEW This course provides a thorough knowledge of the recommended safe behaviors for those who work around electrical hazards. Attendees gain an understanding of the latest guidelines and regulations from NFPA 70E and OSHA. Electrical workers and safety professionals learn key practical information: best work practices in electrical safety and how to apply them in real-world situations.

REFERENCES *Current NFPA 70E Standard, OSHA Regulations (as applicable)*

MATERIALS *e-Hazard Low Voltage Qualified Workbook, Current NFPA 70E Standard*

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

- Types
- Understanding AC and DC Shock
- 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
- Common Places
- Arc Flash Boundaries
- Methods for Determining Arc Flash Hazard
- Labeling
- Practical Application

5. Personal Protective Equipment

- General Guidance
- Arc Hazard Protection
- What Arc Rating Means
- PPE Programs: Categories, Levels
- Environmental Considerations
- PPE Guidelines and Maintenance

6. Risk Management Methods

- Electrical Equipment Maintenance
- Prevention by Design
- Supplemental Equipment
- Engineering Solutions

7. Job Planning

- Elements of Safety Planning
- Risk Assessment
- Determining Risk Control Methods
- Electrically Safe Work Condition Requirements and Exemptions
- Energized Electrical Work Permit
- Emergency Response
- Job Briefing
- Task Assessment Exercise

8. Safety Related Work Practices

- Working On
- Identifying and Securing Boundaries
- Tools and Equipment
- Test Equipment
- Best Practices for Lock Out/Tag Out, Verifying De-energization and LV Grounding
- Special Equipment
- Situational Conditions (Overhead, Underground, etc.)
- Training
- Administrative Guidelines
- Recognizing Hazards and Poor Work Practices