COURSE OUTLINE

High Voltage Qualified

8-Hour Course (HV Portion)

OVERVIEW

Day 1 e-Hazard Low Voltage Qualified Course (required), *see Low Voltage Outline*

Day 2 The second half of this course addresses the potential electrical hazards and safety practices specific to industrial high voltage systems. Working on or around these types of systems requires additional knowledge and training on the relevant hazards and safety measures. Attendees in this class focus on the safety procedures, line tools and mobile equipment considerations related to qualified high voltage tasks. As part of the course, students work in small groups to apply what they have learned to preparing and presenting a pre-work briefing of a practical situation.

REFERENCES *OSHA Regulations (1910.269 and others as applicable), Current NFPA 70E Standard, Current National Electrical Safety Code (NESC)*

MATERIALS *e-Hazard High Voltage Qualified Workbook, plus Low Voltage Course Materials*

Introduction: Review Key Safety Practices

1. **Regulations & Standards**
   - High Voltage Applicability
   - Training Requirements
   - Energized Work Policies
2. **Roles & Responsibilities**
3. **High Voltage (HV) Hazards**
   - Touch & Step Potential
   - Induced & Impressed Voltage
   - Arc Flash

Protection Strategies

4. **HV Boundaries**
   - Approach Distances
   - Barricading Considerations
   - Signage Requirements
5. **HV Safety Equipment**
   - PPE
   - Live-Line Tools
   - Insulating Equipment
   - Test Equipment
   - Protective Grounds
6. **Protective Grounding Principles**
   - Creating an Equipotential Zone (EPZ)
   - Grounding Procedures
7. **Job Planning**
8. **Safe Work Practices**
   - Steps for Creating an Electrically Safe Work Condition
   - Documenting
   - Reenergizing
   - Site-Specific Considerations (Heights, Confined, Substations, Maintenance, etc.)
9. **Mobile Equipment**
   - General Requirements
   - Inspections & Dielectric Testing
   - Regulations
   - Qualified HV Operations
   - Protective Grounding
   - Other Considerations
10. **Putting It All Together – HV Exercise**
    - Develop Work Plan
    - Identify Hazards and Safe Work Zone
    - Determine Required PPE
    - Identify Procedures and Tools Needed
    - Demonstrate Tool/Equipment Inspections
    - Prepare Switching Order
    - Prepare Pre-Work Briefing

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