Arc Flash and Shock Mitigation refresher, Electrical Safety per NFPA 70E standard for managers, operations and non-qualified workers

- **After Participating in this course, you will be able to:**

- Understand principles of Electrical Safety per OSHA 29CFR 1910(S), NFPA 70E 2024.
- Hazard recognition for workplace incident prevention
- Be aware of the requirements for a Qualified Electrical Worker
- Use gained knowledge for PPE selection, use of barriers, barricades, boundaries and signage
- Orientation on risk assessment methodologies
- Knowing how to achieve an electrically safe work condition, staging of a safe work zone

Description:

This course covers principles of Electrical Safety to reduce incidents of Shock and Arc Flash. The contents of NFPA 70E are a result of cumulative studies on incidents documented by OSHA since 1970 involving injuries and fatalities due to Electrical Energy.
What this course does not cover is the practical component of this standard required for Electrical Workers involving field demonstration of LV/MV Safe Work practices.

Course Outline :

- History, Evolution & Chronology of the standard NFPA 70E
- Arc Flash and Shock Theory and boundaries
- Boundary distance calculation, tables, interpreting Arc Flash Labels
- Risk Assessment
- Review of JHA/JSA and job planning forms
- PPE study
- Setting up a Safe Work Zone, Safe Work Practices
- Medium Voltage Systems (1kV-69kV) considerations
- Flexible Cords and Portable Tools
- Definition, Requirements of a Qualified Electrical Worker

Who Should Attend:

- Electrical Engineers
- Managers who supervise Electricians or Operators of Electrical Equipment
- Plant Supervisors, Operations personnel and Foremen
- Human Resource and Safety Professionals for Manufacturing, Processing facilities
- Instrumentation, Controls and Manufacturing Engineers
- Owners of Plants, facilities with risk of Electrical Incidents

Syllabus:

1 - History, OSHA, NFPA 70E and CSA Z462 evolution & chronology

2 - Arc Flash Hazard, definition, causes, factors that accentuate/mitigate

3 - Shock Hazard, Dalziel studies, harmful thresholds and effects

4 - Limited Approach Boundary, Restricted Approach Boundary, Arc Flash Boundary Definitions & Rules (Safe Work Practices)

5 - use of barriers, barricade, PPE selection and stdy

6 - Revision of Lockout/Tagout (Establishing an Electrically Safe work Condition)

7 - Setting up/Staging of an Electrically Safe Work Zone