Confined Space Entrant/Attendant

E-Learning Course Outline

Course Length: 1.5 hours

Course Objective:

- Training will inform delegates of the various roles and responsibility of the entrant attendant, and entry supervisor, as well as discuss the hazards associated with confined spaces, permitting procedures, approval process, and measures necessary for protection, atmospheric monitors, testing, and emergency response and evacuation.

Course Design:

- Narrated e-learning modules

Successful Course Completion:

- Requires successful completion of knowledge assessment.

Course Outline:

About Confined Spaces

- OSHA/NIOSH Statistics
- What is a Confined Space?
- What is a Permit-Required Confined Space?
- Common Examples of a Confined Space

Responsibilities of Personnel

- Competent Persons
  - Entrant
  - Attendant
  - Rescue
  - Entry Supervisor
- Roles and Responsibilities of Personnel

Confined Space Entry

- Entry Requirements
- Entry Permit Requirements/Completion
  - Employer Responsibilities
  - Permit Requirements
- Hazard Communication
- Hazard Evaluation
- Pre-Job Safety Planning
- Entry Permit Close Out
  - Routine
  - Emergency
- What Constitutes Entry?
- Confined Space Hazards

- Atmospheric
- Physical

Atmospheric Hazards

- Breathing Air Composition
- Oxygen Levels
  - Asphyxiation
- Effects of Oxygen Deficiency
- What Causes Oxygen Deficient Atmosphere?
- What Causes Oxygen Enriched Atmosphere?
- Other Hazards
- Toxic Contaminants
- How much is Hazardous?
  - Permissible Exposure Limit (PEL)
  - Threshold Limit Value (TLV)
    - Time Weighted Average (TWA)
    - Short Term Exposure Limit (STEL)
    - Exposure Ceiling
- Common Hazardous Gases Found in Confined Spaces
- Acute/Chronic Symptoms
- Flammability
  - Explosions
  - Explosion Mixture
  - Flash Point
  - Upper Explosive Limit (UEL)
  - Lower Explosive Limit (LEL)
- LEL Requirements (OSHA)
- UEL/LEL Examples
- Causes of Flammable Atmospheres
- Fire Ignition
- Safety Data Sheets (SDS)
  - Components of SDS
  - Sections of SDS

Atmospheric Hazard Protection

- Control Measures
  - Engineering Controls
  - Administrative Controls
  - Personal Protective Equipment (PPE)
- Types of Respirators
  - Air Purifying Respirator (APR)
  - Supplied Air Respirator (SAR)

        - Atmospheric Supplied
        - Self-Contained Breathing Apparatus (SCBA)
        - Cascade Systems
        - Escape Packs
- Respirator Fit Testing
    - Quantitative
    - Qualitative
- Respirator Usage
- Respirator Inspection
- Respirator Maintenance
- Respirator Donning/Doffing
- Respirator Storage
- Air Monitors
    - Requirements
    - Personal Detectors
    - User Responsibility
- Air Sampling in a Confined Space
    - Stratification

Physical Hazards

- Common Physical Hazards
    - Engulfment
    - Entrapment/Entanglement
    - Potential Energy
    - Electrical
    - Pressure
    - Momentum/Gravity
    - Residual/Stored
- Protective Measures for Each Hazard

Worker Introduced Hazards

- Common Examples
- External Hazards

Confined Space Safety

- Isolating the Space
- Clearing the Space
- Ventilation
- Types of Ventilation
    - Natural
    - Mechanical Supply
    - Mechanical Exhausting

- Ventilation Factors
- Supply Ventilation Directions
- Exhaust Ventilation Directions
- Proper Ventilation Techniques

Post Training Evaluation:

- The employer shall ensure that each employee is evaluated to confirm that he/she understands the information provided in the training.

Reference Material / Documents:
OSHA 29 CFR 1910.146
OSHA 29 CFR 1910.134

M&A Safety Services training conforms to OSHA CBT Training standards and ANSI Z490.1. Criteria for Accepted Practices in Safety, Health and Environmental Training. M&A Safety Services LLC. follows all ANSI training criteria.