

**Course Length:** 0.5 hours

**Course Objective:**

- This program outlines the requirements and responsibilities necessary to provide hazardous levels of low and high gas monitoring systems. The goal is to assure standardization of set points, calibration of monitors, and uniform response to alarms.
- Students will be trained to monitor multiple types of gases and be able to respond to emergency evacuations of a hazardous area.

**Course Design:**

- Narrated e-learning modules

**Successful Course Completion:**

- Requires successful completion of knowledge assessment.

**Course Outline:**

About Air Monitors

- General Information
  - General Attributes
  - Response Time
  - Selectivity
  - Precision
- Air Monitoring Systems
- Air Monitoring Results
- Fixed Detectors
- Personal Electronic Detectors
- Colorimetric Tubes
- Sampling Requirements
  - Area Sampling
  - Personal Sampling
  - Instantaneous Sampling

Atmospheric Hazards

- Oxygen Levels
  - Asphyxiation
- Effects of Oxygen Deficiency
- Breathing Air Composition
- What Causes Oxygen Deficiency Atmosphere?
- What Causes Oxygen Enriched Atmosphere?
- Flammability
  - Explosions
  - Explosion Mixture

- Flash Point
  - Upper Explosive Limit (UEL)
  - Lower Explosive Limit (LEL)
- LEL Requirements (OSHA)
- UEL/LEL Examples
- Causes of Flammable Atmospheres

**General Function**

- Air Monitor Contents
  - Gas Detector
  - Adapters
  - Rechargeable Batteries
  - Spare Batteries
  - Charging Base
  - Security Straps
  - Current Calibration Results
- Batteries
- Powering On Unit
- Calibration
- Air Monitoring Techniques
  - Stratification

**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:**

29 CFR 1910.146 App B

Manufacturer Guidelines

- MSA
- Honeywell
- BW

*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.*

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