



## **M&A Safety Services**

512 Viaulet Road  
Youngsville, Louisiana 70592  
Main: 337-451-4685  
Fax: 337-451-5847  
[www.masafetyservices.com](http://www.masafetyservices.com)

## **Air Monitoring**

### **Course Outline**

**Prerequisites:** This course shall have no formal pre-requisite.

**Course Length:** 1 hour - Course length shall vary depending on the number of delegates. Total course time includes breaks.

**Class Size:** The maximum number of delegates that may be trained and tested per instructor shall be thirty-five (35) in the classroom session.

### **Course Objective**

- Provide delegates with general knowledge required to operate air monitors.
- Delegates should be able to demonstrate knowledge during written examination.

### **Course Design**

- Power Point© / Lecture / Audio Video / Visual Aids

### **Successful Course Completion**

- Requires a minimum score of 75% or better.
- Delegates will have no more than thirty (30) minutes to complete the exam.
- Grades shall be calculated by dividing the number of questions answered correctly by the total number of exam questions.

### **Course Content Summary**

- Classroom

**Breaks:** 10 minutes (approximately every hour)

**Lunch:** 1 Hour (if applicable)

### **Course Outline**

#### About Air Monitors

- General Information
  - General Attributes
  - Response Time
  - Selectivity
  - Precision
- Air Monitoring Systems
- Air Monitoring Results
- Fixed Detectors



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- Personal Electronic Detectors
- Calorimetric 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
- Powering On Unit
- Calibration
- Air Monitoring Techniques
  - Stratification



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### **Training Center Provided Material**

- Course Materials

### **Delegate Requirements**

- None

### **Reference Material / Documents**

#### Manufacturer Guidelines

- MSA
- Honeywell
- BW