



## 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.
- ) Grades shall be calculated by dividing the number of questions answered correctly by the total number of exam questions.
- ) Delegates will have no more than thirty (30) minutes to complete the exam.

### Course Content Summary

- ) Classroom

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

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

### Course Outline

#### About Air Monitors

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



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- ) Personal Electronic Detectors
- ) Colorimetric Tubes
- ) Sampling Requirements
  - o Area Sampling
  - o Personal Sampling
  - o Instantaneous Sampling

### Atmospheric Hazards

- ) Oxygen Levels
  - o Asphyxiation
- ) Effects of Oxygen Deficiency
- ) Breathing Air Composition
- ) What Causes Oxygen Deficiency Atmosphere?
- ) What Causes Oxygen Enriched Atmosphere?
- ) Flammability
  - o Explosions
  - o Explosion Mixture
  - o Flash Point
  - o Upper Explosive Limit (UEL)
  - o Lower Explosive Limit (LEL)
- ) LEL Requirements (OSHA)
- ) UEL/LEL Examples
- ) Causes of Flammable Atmospheres

### General Function

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



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### **Practical Session**

While there is no formal practical session for this course, demonstration exercises are conducted.

### **Training Center Provided Material**

) Course Materials

### **Delegate Requirements**

) None

### **Reference Material / Documents**

Manufacturer Guidelines

- MSA
- Honeywell
- BW