

IDENTIFY, DETECT, & MONITOR HAZARDOUS MATERIALS AT AN INCIDENT

“Awareness Saves Lives – Mastering Detection and Monitoring of Hazards in High-Risk Environments”

Schedule

Venue	Fees
In-House	ASK FOR THE QUOTATION

Introduction

This practical and awareness-focused course trains emergency responders, industrial safety teams, and environmental professionals in identifying, detecting, and monitoring hazardous materials during emergency incidents. Whether in industrial zones, transportation accidents, or terrorist events, the ability to quickly assess and react to chemical, biological, radiological, and nuclear (CBRN) threats is vital.

Participants will work with detection technologies, learn material classification systems, and apply incident response protocols aligned with NFPA, OSHA, and international best practices.

Objectives

Participants will be able to:

- Recognize signs and indicators of hazardous material presence
- Understand the classification and characteristics of hazardous substances
- Operate and interpret data from detection and monitoring equipment
- Apply incident command and zone control in hazmat scenarios
- Conduct environmental and atmospheric monitoring to protect life and property

Why Attend

- Gain life-saving skills for hazmat and emergency response
- Learn hands-on operation of industry-standard detection tools
- Boost confidence in decision-making during chemical incidents
- Comply with international emergency preparedness standards

Target Audience

- Fire and Rescue personnel
- Hazmat teams and First Responders
- Safety Officers & Environmental Engineers
- Industrial Plant Emergency Response Teams
- Defense, Maritime, and Aviation Security

Individual Benefits

- Enhance your situational awareness and detection capability
- Learn to quickly evaluate threats in dangerous situations
- Improve safety leadership and critical thinking under pressure
- Increase employability and credentials in safety-critical roles

Organizational Benefits

- Strengthen emergency response readiness
- Reduce risk and liability in hazardous operations
- Enhance inter-agency coordination and on-site command structures
- Fulfill compliance requirements for hazardous materials training

Instructional Methodology

- Instructor-led scenario-based training
- Hands-on demonstrations with real monitoring tools
- Interactive group exercises and case studies
- Risk assessment simulations
- Final performance evaluations

Course Outline

Detailed 5-Day Course Outline (Customizable)

Training Hours: 7:30 AM – 3:30 PM **Daily Format:** 3–4 Learning Modules | Coffee Breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Hazardous Materials Recognition and Classification

- **Module 1:** Introduction to Hazardous Materials and CBRN Threats (07:30 – 09:30)
- **Module 2:** UN, DOT, and GHS Labeling Systems (09:45 – 11:15)
- **Module 3:** Types of Hazards: Physical, Chemical, Biological (11:30 – 01:00)
- **Module 4:** Case Study – Incident Indicators & Material Clues (02:00 – 03:30)

Day 2: Detection Principles and Equipment

- **Module 1:** Detection Tools: PID, FID, Multi-Gas Monitors, Radiation Detectors (07:30 – 09:30)
- **Module 2:** Instrument Calibration and Field Maintenance (09:45 – 11:15)
- **Module 3:** Biological & Radiological Agent Detection (11:30 – 01:00)
- **Module 4:** Practical Demo – Setting Up Detection Zones (02:00 – 03:30)

Day 3: Environmental Monitoring at an Incident Site

- **Module 1:** Establishing Control Zones (Hot, Warm, Cold) (07:30 – 09:30)
- **Module 2:** Monitoring for Atmospheric and Ground Contamination (09:45 – 11:15)
- **Module 3:** Mapping Contamination and Exposure Risks (11:30 – 01:00)
- **Module 4:** Group Exercise – Monitoring Strategy Development (02:00 – 03:30)

Day 4: Operational Response & Safety Protocols

- **Module 1:** Site Safety and PPE Requirements (07:30 – 09:30)
- **Module 2:** Decontamination Procedures and Emergency Response (09:45 – 11:15)
- **Module 3:** Interpreting Detector Readings and Response Thresholds (11:30 – 01:00)
- **Module 4:** Tabletop Simulation – Hazmat Incident Management (02:00 – 03:30)

Day 5: Final Assessments and Incident Response Capstone

- **Module 1:** Response Coordination with Emergency Services (07:30 – 09:30)
- **Module 2:** Live Scenario Drill – Detection & Containment Plan (09:45 – 11:15)
- **Module 3:** Review, Q&A, and Exam (11:30 – 01:00)
- **Module 4:** Certification Ceremony & Course Wrap-Up (02:00 – 03:30)

Certification

Upon completion, participants will receive an **International Certificate in Hazardous Materials Detection and Monitoring**, certifying competency in incident site assessment and hazard response operations.

Why Choose MAWA Events

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