



NATIONAL ENVIRONMENTAL TRAINERS, INC.  
3812 SHOAL CREEK COURT  
MARTINEZ, GEORGIA 30907  
1.888.877.7130

[WWW.NATIONALENVIRONMENTALTRAINERS.COM](http://WWW.NATIONALENVIRONMENTALTRAINERS.COM)

*The Official Site of Environmental Health & Safety Training®*

## **HAZMAT Technician Annual Refresher**

29 CFR 1910.120 (q)

---

**Course Description**

**2017**



This course features the exclusive OSHA accepted HAZWOPER Hands-on Simulator®. The simulator offers a stunning 3D environment for the proper donning and doffing of personal protective equipment (PPE).

**Cost: \$125.00 per person**

Group discounts available (3 or more people). Please email or call us at 1.888.877.7130 for a quote.

**Course Features**

- Includes 14 full length videos
- HAZWOPER Hands-on Simulator® - (OSHA Accepted)
- Over 78 interactive flash animations
- 62 modules with professional voiceovers
- Award winning content - CEU's
- Self grading quizzes and final exam
- OSHA Study Timer (tracks your study time login and logout at your convenience)
- Certificate of Completion (3 certificates) e-cert, 8x10 and wallet card (instant download of e-certificate upon course completion)
- HAZMAT course access for 1 year from the time of registration
- Free registration into the National Repository® (download your certificates at anytime in the future)

**Course Description**

In compliance with OSHA 29 CFR 1910.120(q) regulations, (HAZWOPER emergency response regulations) this training is required for individuals who plan to work as emergency responders. Upon successful completion of the course, students will receive a certificate of completion accepted by regulatory agencies.

Students will be allowed to proceed at their own pace in this interactive program. Note: OSHA requires a list of competencies that must be met rather than a minimum time requirement for emergency response refresher training.

Training includes offensive procedures for mitigation of hazardous materials spills, leaks, and exposures. Topics include chemistry, detection devices, advanced recognition and identification, pre-incident planning, incident management, scene evaluation and termination, terrorism, toxicology, medical surveillance, emergency care, PPE usage and limitations, and decontamination.



Aesthetically pleasing course layout that is user friendly. Professional voice-overs, animations and high definition photographs. Self-grading quizzes and final exam.

Along the way there are self grading quizzes, interactive exercises, full length videos and a self grading final exam. The quizzes can be taken as many times as needed, and the final exam can be taken a maximum of 3 times. Once a person satisfactorily completes the course, an e-certificate is immediately sent to them via email. The original certificates (8x10 and wallet card size) arrive in the U.S. mail.

### Course Overview

This training course offers 8 hours of on-line instruction. The course is a combination of: web-based instruction interactive exercises, audio narration of text, videos, animations, self-grading quizzes, and a final exam.

This course features our exclusive **OSHA accepted HAZWOPER Hands-on Simulator®** and is divided into 62 modules.

While this training course is very comprehensive, additional site-specific training must be taken for certain hazardous materials/environments that may be encountered at different sites. This is an employer obligation.

The HAZMAT Technician course is taken online. As with any training (classroom or online) the employer is required by regulations to train the employee(s) on performance based standards for any applicable equipment. This is a HAZWOPER site-specific requirement and typically cannot be achieved in a regular public seminar or open enrollment class where training on a respirator(s) or PPE in general does not meet the site-specific regulatory requirement. Generic hands-on training on PPE and equipment does not fully meet the OSHA regulations.

Plan States (approved by U.S. OSHA) must have standards at least as stringent as the Federal HAZWOPER training requirements. These Plan States may have additional training requirements.



## Key Regulatory Topics

- Know how to implement the employer's emergency response plan
- Know the classification, identification and verification of known and unknown materials by using field survey instruments and equipment
- Be able to function within an assigned role in the Incident Command System
- Know how to select and use proper specialized chemical protective equipment provided to the hazardous materials technician
- Understand hazard and risk assessment techniques
- Be able to perform advanced control containment and/or confinement operations within the capabilities of the resources and personal protective equipment
- Understand and implement decontamination procedures
- Understand termination procedures
- Understand basic chemical and toxicological terminology and behavior

## Support

Includes 24/7 **U.S. Based** support. An experienced and highly qualified HAZWOPER instructor is available to you throughout the training process. Our toll free hotline or email will allow access to some of the finest instructors in the U.S.

## Duration

**OSHA requires a list of competencies that must be met rather than a minimum time requirement for emergency response refresher training.** Our course allows you to login and logout at any time increment in order to fit your schedule. When you logout, the course will be bookmarked so you can begin where you left off. The study timer will also accrue your time and will begin where you left off in the course.

## Continuing Education Units (CEU's)

This HAZMAT Technician refresher course has been awarded 1.34 Industrial Hygiene CM Points by the American Board of Industrial Hygiene (ABIH) - approval number 13334. This course is eligible for .66 Continuance of Certification (COC) points from the Board of Certified Safety Professionals (BCSP).

## Prerequisites

**24 Hour HAZMAT Technician**

## Table of Contents

### **Module 1: Regulatory Overview**

*EPA  
OSHA  
Levels of Training*

"Overall I thought your 8 Hour HAZWOPER Refresher was very good..."

*J. Staples, OSHA*

### **Module 2: Overview of Incident Command System**

*Introduction  
Incident Commander Responsibilities  
Hazardous Materials Contingency Plan  
Organization  
Incident Command System*

### **Module 3: Incident Command System Concepts and Principles**

*Common Terminology  
Unity of Command  
Designated Incident Facilities*

### **Module 4: Roles and Responsibilities Part 1**

*Organizational Structure  
Essential Personnel  
Health and Safety Plan (HASP)*

### **Module 5: Roles and Responsibilities Part 2**

*Optional Personnel  
Lines of Authority*

### **Module 6: HAZMAT Site Control**

*Site Map  
Site Preparation*

### **Module 7: HAZMAT Site Zones**

*Site Zones Explained  
Establishing the Hot Line  
The Buddy System*

### **Module 8: HAZMAT Support Zones**

*Site Security  
Communication Systems*

### **Module 9: General Health and Safety Plan Guidelines**

*Health and Safety Guidelines  
Overview of Health and Safety Plan*

## **Module 10: Medical Surveillance Program**

*Information for Medical Program  
Develop a Site Specific Medical  
Program*

## **Module 11: Hazard Recognition (Overview)**

*Injury Prevention  
Boiling Point, Vapor Pressure, Vapor Density, pH,  
Flashpoint  
Oxidizers  
Lower/Upper Explosive Limits  
Flammability  
Fire Triangle  
SDS*

## **Module 12: Respiratory Protection Part 1**

*Respirator Protection Program  
Respirator Types  
Selection of Respiratory Equipment*

## **Module 13: Respiratory Protection Part 2**

*Air-purifying Respirators  
Combination Canisters and Cartridges  
Types of APR Face Pieces*

## **Module 14: Personal Protection Equipment (PPE) Part 1**

*Clothing and Ensembles  
Developing a PPE Program  
Training  
Program Review and Evaluation*

## **Module 15: Personal Protection Equipment (PPE) Part 2**

*Level A  
Level B  
Level C  
Level D  
Selecting the level of protection*

## **Module 16: Personal Protection Equipment (PPE) Part 3**

*Protective Clothing  
Inspection and Maintenance of Protective Clothing  
Selection of Chemical Protective Clothing  
Permeation and Degradation  
Work Mission Duration*

## **Module 17: Personal Protection Equipment (PPE) Part 4**

*Considerations for working in PPE  
Air Supply Consumption  
Coolant Supply  
Accessories  
Special Considerations*

## **Module 18: Personal Protection Equipment (PPE) Part 5**

*Reasons to Upgrade/Downgrade PPE  
PPE Inspection Program*



*Proper Storage  
PPE Before Use Inspection*

## **Module 19: Decontamination Part 1**

*Decon Plan and Procedures  
Standard Operating Procedures  
Maximizing Worker Protection from Hazardous  
Wastes  
Proper Dress Out Procedures  
Levels of Contamination*

## **Module 20: Decontamination Part 2**

*Personal Decon Station  
Extent of Decon Required  
Types of Contamination  
Amount of Contamination  
Levels of Protection*

## **Module 21: Decontamination Part 3**

*Decon of Personnel and Equipment  
Decon During Medical Emergencies  
Physical Injury  
Heat Stress*

## **Module 22: Decontamination Part 4**

*Protection for Decon Workers  
Decon Procedures  
Chemical and Physical Removal of Contamination*

## **Module 23: Decontamination Part 5**

*Persistent Contamination  
What if Decon procedure has not worked?  
Lab Testing Articles  
Fundamentals that Affect Permeation of Protective  
Clothing  
Substance and Tools for Effective Decontamination*

**Module 24: Placards and Labeling**  
*NFPA Hazardous System Identification*  
*DOT Placards*

**Module 25: Toxicology Part 1**  
*Chemical Classification*  
*Toxicology*  
*Routes of Exposure and Dose*  
*Interaction with Other Chemicals*  
*Dust, Fumes, Mists and Vapors*

**Module 26: Toxicology Part 2**  
*Toxicokinetics*  
*Metabolism*  
*Classes of Chemical Toxins*  
*Dose to Organs*

**Module 27: Toxicology Part 3**  
*Dose and Response*  
*Storage in the Body*  
*Chronic Response*  
*Toxic*  
*Chemical Interaction*  
*Dose/Response*  
*OSHA Exposure Limits*

**Module 28: Hazard Recognition Part 1**  
*NFPA Requirements*  
*Job Hazard Analysis*  
*Defining Risk*  
*Chemical Hazard Identification Systems*  
*NFPA 704 System*  
*DOT Labels and Placards*  
*Ionizing Radiation*

**Module 29: Hazard Recognition Part 2**  
*Chemical and Physical Hazards*  
*Fires and Explosions*  
*Combustibles*  
*Shock Sensitive*  
*Oxygen Deficiency*

**Module 30: Hazard Recognition Part 3**  
*Site and Equipment Hazards*  
*Noise*  
*Heat Stress*  
*Heat Stroke*  
*Cold Stress*

**Module 31: Hazard Recognition Part 4**  
*Infectious Diseases (Bloodborne Pathogens, HIV, HBV)*  
*Sanitation*  
*Illumination*  
*Lockout/Tagout*

**Module 32: Air Monitoring Part 1**  
*Requirements for Air Monitoring Devices*  
*Sampling Methods*  
*Air Monitoring Equipment Characteristics*



**Module 33: Air Monitoring Part 2**  
*Types of Direct Reading Instruments*  
*Calibration*  
*Toxic Atmosphere Monitors*

**Module 34: Air Monitoring Part 3**  
*Types of Direct Reading Instruments Cont'd*  
*Photoionization Detector (PID)*  
*Flame Ionization Detector (FID)*  
*Radiation Monitors*  
*OSHA Action Levels*

**Module 35: Air Monitoring Part 4**  
*Active and Passive Sampling Equipment*  
*Personal Monitors*  
*Radiation Dosimeters*  
*Calibration*  
*Personal Sampling Plan*

**Module 36: Air Monitoring Part 5**  
*OSHA Exposure Limits*  
*Measuring Particles, Gases and Vapors*  
*Permissible Exposure Limit (PEL)*  
*Time Weighted Averages (TWA)*  
*Calculating TWAs*

**Module 37: Air Monitoring Part 6**  
*Site Monitoring*  
*Monitoring for Immediately Dangerous to Life and Health (IDLH)*  
*Perimeter Monitoring*  
*Variables of Hazardous Waste Site Exposures*

**Module 38: Site Emergencies Part 1**  
*Planning and Personnel*  
*Site Emergencies*  
*How Teams assist in Emergencies*  
*Roles of Personnel During Emergencies*

### **Module 39: Site Emergencies Part 2**

*Communications*  
*Safe Distances and Site Mapping*  
*Safe Refuge*  
*Public Evacuations*

### **Module 40: Site Emergencies Part 3**

*Evacuations and Emergency Decontamination*  
*Personal Locator Systems*  
*Evacuation Routes and Procedures*  
*First Aid/Medical Treatment*

### **Module 41: Site Emergencies Part 4**

*Emergency Response Procedures*  
*Notification*  
*Size-Up*  
*Rescue/Response Action*  
*Follow Up*  
*Documentation*

### **Module 42: Facility Emergency Response Plan Part 1**

*Pre-emergency Planning*  
*Personnel Roles and Communication*  
*Recognition and Prevention*  
*Safe Distances and Refuge*

### **Module 43: Facility Emergency Response Plan Part 2**

*Site Security and Control*  
*Evacuation Routes and Procedures*  
*Emergency Decontamination*  
*Emergency Medical Treatment and First Aid*  
*Emergency Response Procedures and Critique*

### **Module 44: Overview of DOT Emergency Response Guidebook (ERG)**

*Introduction*  
*How to Read the ERG*  
*List of DOT Tanks and Containers*  
*Labeling*

### **Module 45: The Ability to Recognize and Identify Hazardous Materials Part 1**

*Hazardous Materials Clues*  
*Occupancy/Location*  
*Fixed Sites*  
*Transportation Sources*  
*Highway, Rail and Air*  
*Marine*  
*Pipelines*

### **Module 46: The Ability to Recognize and Identify Hazardous Materials Part 2**

*Tanks and Containers*  
*Container Shape and Size*  
*Types of DOT Highway Transportation Tanks, Tankers, Trailers and Containers*  
*Types of DOT Rail Transportation Tank Cars*  
*Intermodal Containers*



### **Module 47: The Ability to Recognize and Identify Hazardous Materials Part 3**

*Stationary Bulk Tanks & Containers*  
*Cryogenic Liquid Storage Tank*  
*Dome Roof Tank*  
*High Pressure Spherical Storage Tank*  
*High Pressure Horizontal Tank*  
*Cone Roof Tank*  
*Covered Top Floating Roof Tank With Geodesic Dome*  
*Covered Top Floating Roof Tank*  
*Open Top Floating Roof Tank*  
*Petroleum Storage Tanks*  
*Horizontal Tank*

### **Module 48: The Ability to Recognize and Identify Hazardous Materials Part 4**

*Non-Bulk Containers*  
*Drums*  
*Bags or Sacks*  
*Boxes or Crates*  
*Cylinders*  
*Intermediate Bulk Containers*

### **Module 49: The Ability to Recognize and Identify Hazardous Materials Part 5**

*Radioactive Containers*  
*Type A*  
*Type B*  
*Excepted*  
*Industrial Package I*  
*Industrial Package II*

### **Module 50: The Ability to Recognize and Identify Hazardous Materials Part 6**

*Tanks and Containers Markings and Colors*  
*NFPA 704 System*  
*HMIS Placards and Labels*



UN NA Hazard Class System  
DOT 9 Classes of Hazardous Materials  
Shipping Papers and SDSs

**Module 51: HAZMAT Emergency Response  
Strategy and Tactics**  
*Incident Action Plan (IAP)*  
*Strategy and Tactics*

**Module 52: HAZMAT Emergency Response  
Strategic Goal 1 - Isolation**  
*HAZMAT Zones*  
*Staging Areas*  
*Public Protection*  
*Shelter in Place*  
*Evacuation*

**Module 53: HAZMAT Emergency Response  
Strategic Goal 2 - Notification of Others**  
*Unity of Command*  
*Emergency Response Plan*  
*Incident Levels*

**Module 54: HAZMAT Emergency Response  
Strategic Goal 3 - Identification of Hazards**  
*Surveying the Scene*  
*Rescue Risks Associated with DOT Hazard Classes*  
*Pipelines*  
*Containers*  
*Dispersion Patterns*  
*Environment*  
*Confined Spaces*  
*Storage Areas*

**Module 55: HAZMAT Emergency Response  
Strategic Goal 4 - Protection of Responders and  
Public**  
*HAZMAT Technician Personal Protective Equipment*  
*Structural Firefighting Equipment*  
*Proximity and Entry Suits*  
*Chemical Protective Equipment*  
*Limitation of Personal Protective Equipment (PPE)*  
*Responder Rehabilitation*  
*Emergency Decon*  
*Mass Decontamination*  
*Hose line Decontamination*  
*Engine Corridor Decontamination*  
*Ladder Corridor Decontamination*  
*Decontamination Tents and Trailers*  
*Hospital Decon*  
*Contaminated Victim Decontamination*  
*Pets and Animals Decontamination*

**Module 56: HAZMAT Emergency Response  
Strategic Goal 5 - Fire Control**  
*Ignition Sources*  
*Extinguishing Fires*  
*Remove Fuel Supply*  
*Remove Oxygen Source*  
*Control Burn*  
*Exposure Protection*



*Preventing Container Failure*  
*Cool Containers*  
*Stress Barriers*  
*Remove Uninvolved Materials*  
*Tactical Withdrawal*  
*Explosion-Resistant Barriers*

**Module 57: HAZMAT Emergency Response Strategic  
Goal 6 - Spill Control (Confinement)**  
*Air Releases*  
*Foams*  
*Ventilation*  
*Releases Onto Land*  
*Absorption*  
*Blanketing*  
*Diversion*  
*Diking*  
*Damming*  
*Retention*  
*Filter Fence*  
*Floating Boom*  
*Chemical Control Methods*  
*Groundwater Contamination*

**Module 58: HAZMAT Emergency Response Strategic  
Goal 7 - Leak Control (Containment)**  
*Tool Kits*  
*Leaks from Drums*  
*Leaks From Piping*  
*Leaks from Tank Trucks and Assorted Containers*  
*Product Transferring*  
*Specialty Tools*  
*Product Displacement*  
*Crimping*

**Module 59: HAZMAT Emergency Response Strategic  
Goal 8 - Recovery and Termination Procedures**



*Incident Transition*  
*Termination*  
*Debriefing*  
*Critiquing*  
*After-Action Procedures*  
*Reporting*  
*Follow Up*

**Module 60: Using Foams**

*Vapor Suppression*  
*Using Foams*  
*Types of Foams*  
*Foam Methods*

**Module 61: Review and Basic Chemistry Part 1**

*Physical Properties Terms*

**Module 62: Review and Basic Chemistry Part 2**

*Physical Properties Terms Continued*

**HAZWOPER Hands-On Simulator**

**Final Exam**

"We really enjoyed the  
content and delivery of  
your training".

*S. Maide, U.S. EPA*

