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

**HAZMAT Technician**  
29 CFR 1910.120 (q)

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**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: \$295.00 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
- 78 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. Students must complete a minimum of 24 hours of study time in order to satisfy part of the 24 hour HAZMAT Technician certification requirement.

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 24 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. Our OSHA Study Timer is also used to comply with the 24 hour HAZWOPER training requirement. A student cannot take the final exam until this time requirement is met.

This course features our exclusive **OSHA accepted** HAZWOPER Hands-on Simulator® and is divided into 78 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

**24 hours (OSHA Training Requirement)** Note: OSHA requires the course will take a minimum of 24 hours of actual study time. Anything less will not comply with the OSHA standard. 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 course has been awarded 4.01 Industrial Hygiene CM Points by the American Board of Industrial Hygiene (ABIH) - approval number 13334. This course is eligible for 2.00 Continuance of Certification (COC) points from the Board of Certified Safety Professionals (BCSP).

## Prerequisites

None

## 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 Facilities**

*Incident Command Facilities and Locations  
Command Post  
Staging Areas  
Bases*

### **Module 4: Incident Command System Concepts and Principles**

*Common Terminology  
Unity of Command  
Designated Incident Facilities*

### **Module 5: Roles and Responsibilities Part 1**

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

### **Module 6: Roles and Responsibilities Part 2**

*Optional Personnel  
Lines of Authority*

### **Module 7: HAZMAT Site Control**

*Site Map  
Site Preparation*

### **Module 8: HAZMAT Site Zones**

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

## **Module 9: HAZMAT Support Zones**

*Site Security*

*Communication Systems*

## **Module 10: General Health and Safety Plan Guidelines**

*Health and Safety Guidelines*

*Overview of Health and Safety Plan*

## **Module 11: Medical Surveillance Part 1**

*Information for Medical Program*

*Develop a Site Specific Medical Program*

## **Module 12: Medical Surveillance Part 2**

*Medical Examination*

*Periodic Medical Monitoring*

*Examination After Injury*

*Termination Exam*

## **Module 13: Hazard Recognition (Overview)**

*Injury Prevention*

*Boiling Point, Vapor Pressure, Vapor Density, pH,*

*Flashpoint*

*Oxidizers*

*Lower/Upper Explosive Limits*

*Flammability*

*Fire Triangle*

*SDS*

## **Module 14: Respiratory Protection Part 1**

*Respirator Protection Program*

*Respirator Types*

*Selection of Respiratory Equipment*

## **Module 15: Respiratory Protection Part 2**

*Air-purifying Respirators*

*Combination Canisters and Cartridges*

*Types of APR Face Pieces*

## **Module 16: Respiratory Protection Part 3**

*Supplied Air Respirators (SAR)*

*Self Contained Breathing Apparatus (SCBA)*

*Combination SCBA/SAR*

## **Module 17: Respiratory Protection Part 4**

*Chemical Concentration*

*Protection Factors*

*Calculating Protection Factors*

## **Module 18: Respiratory Protection Part 5**

*Respirator Fit Test (Quantitative and Qualitative)*

*Respiratory Maintenance*

*Types of Respirator Canisters*

*How Respirators Work*

*Positive and Negative Pressure Fit Test*

*Respirator Limits*

*Cleaning, Maintenance and Storage*



## **Module 19: Personal Protection Equipment (PPE) Part 1**

*Clothing and Ensembles*

*Developing a PPE Program*

*Training*

*Program Review and Evaluation*

## **Module 20: Personal Protection Equipment (PPE) Part 2**

*Level A*

*Level B*

*Level C*

*Level D*

*Selecting the level of protection*

## **Module 21: 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 22: Personal Protection Equipment (PPE) Part 4**

*Considerations for working in PPE*

*Air Supply Consumption*

*Coolant Supply*

*Accessories*

*Special Considerations*

## **Module 23: Personal Protection Equipment (PPE) Part 5**

*Reasons to Upgrade/Downgrade PPE*

*PPE Inspection Program*

*Proper Storage*

*PPE Before Use Inspection*

## **Module 24: Personal Protection Equipment (PPE)**

### **Part 6**

*In-use Monitoring*  
*Donning and Doffing*  
*Clothing Reuse*  
*Heat Stress and Monitoring*  
*Heat Rash*  
*Heat Cramps*  
*Heat Stroke*

## **Module 25: Personal Protection Equipment (PPE)**

### **Part 7**

*Hand Protection*  
*General Requirements of the OSHA Standard*  
*Eye and Face Protection*  
*Selection of Eye and Face Protection*  
*Head Protection*  
*Foot Protection*

## **Module 26: Decontamination Part 1**

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

## **Module 27: Decontamination Part 2**

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

## **Module 28: Decontamination Part 3**

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

## **Module 29: Decontamination Part 4**

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

## **Module 30: 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 31: Decontamination Part 6**

*Disposal of Contaminated Equipment and Materials*  
*Decon Tools, Devices and Equipment*  
*Disposal of Contaminated Materials*  
*Health and Safety Hazards of Decontamination*  
*Decon Facility Design*



**Module 32: Placards and Labeling**  
*NFPA Hazardous System Identification*  
*DOT Placards*

## **Module 33: Toxicology Part 1**

*Chemical Classification*  
*Toxicology*  
*Routes of Exposure and Dose*  
*Interaction with Other Chemicals*  
*Dust, Fumes, Mists and Vapors*

## **Module 34: Toxicology Part 2**

*Toxicokinetics*  
*Metabolism*  
*Classes of Chemical Toxins*  
*Dose to Organs*

## **Module 35: Toxicology Part 3**

*Dose and Response*  
*Storage in the Body*  
*Chronic Response*  
*Toxic*  
*Chemical Interaction*  
*Dose/Response*  
*OSHA Exposure Limits*

## **Module 36: 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 37: Hazard Recognition Part 2**

*Chemical and Physical Hazards*  
*Fires and Explosions*  
*Combustibles*

*Shock Sensitive  
Oxygen Deficiency*

**Module 38: Hazard Recognition Part 3**

*Site and Equipment Hazards*

*Noise*

*Heat Stress*

*Heat Stroke*

*Cold Stress*

**Module 39: Hazard Recognition Part 4**

*Infectious Diseases (Bloodborne Pathogens, HIV, HBV)*

*Sanitation*

*Illumination*

*Lockout/Tagout*

**Module 40: Air Monitoring Part 1**

*Requirements for Air Monitoring Devices*

*Sampling Methods*

*Air Monitoring Equipment Characteristics*

**Module 41: Air Monitoring Part 2**

*Types of Direct Reading Instruments*

*Calibration*

*Toxic Atmosphere Monitors*

**Module 42: Air Monitoring Part 3**

*Types of Direct Reading Instruments Cont'd*

*Photoionization Detector (PID)*

*Flame Ionization Detector (FID)*

*Radiation Monitors*

*OSHA Action Levels*

**Module 43: Air Monitoring Part 4**

*Active and Passive Sampling Equipment*

*Personal Monitors*

*Radiation Dosimeters*

*Calibration*

*Personal Sampling Plan*

**Module 44: Air Monitoring Part 5**

*OSHA Exposure Limits*

*Measuring Particles, Gases and Vapors*

*Permissible Exposure Limit (PEL)*

*Time Weighted Averages (TWA)*

*Calculating TWAs*

**Module 45: Air Monitoring Part 6**

*Site Monitoring*

*Monitoring for Immediately Dangerous to Life and Health (IDLH)*

*Perimeter Monitoring*

*Variables of Hazardous Waste Site Exposures*

**Module 46: Site Emergencies Part 1**

*Planning and Personnel*

*Site Emergencies*

*How Teams assist in Emergencies*

*Roles of Personnel During Emergencies*



**Module 47: Site Emergencies Part 2**

*Communications*

*Safe Distances and Site Mapping*

*Safe Refuge*

*Public Evacuations*

**Module 48: Site Emergencies Part 3**

*Evacuations and Emergency Decontamination*

*Personal Locator Systems*

*Evacuation Routes and Procedures*

*First Aid/Medical Treatment*

**Module 49: Site Emergencies Part 4**

*Emergency Response Procedures*

*Notification*

*Size-Up*

*Rescue/Response Action*

*Follow Up*

*Documentation*

**Module 50: Facility Emergency Response Plan Part 1**

*Pre-emergency Planning*

*Personnel Roles and Communication*

*Recognition and Prevention*

*Safe Distances and Refuge*

**Module 51: 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 52: Training and Equipping Your HAZMAT Team Part 1**

*Training Requirements*

*HAZMAT Levels*



## *Responsibilities*

### **Module 53: Training and Equipping Your HAZMAT Team Part 2**

*Medical Monitoring  
Cost of Training  
Protection Levels and Equipment*

### **Module 54: Facility Emergency Response Audit Part 1**

*Performing a Process Hazard Analysis  
Site Identification  
Hazard Qualification  
Consequence Analysis*

### **Module 55: Facility Emergency Response Audit Part 2**

*Performing a Workplace Hazard Analysis  
Determining Location  
Examine Container Condition  
Determine the Physical State of Contents  
Determine Dispersion Pathways  
Exposure Indicators*

### **Module 56: Federal, State and Local Emergency Response Requirements**

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

### **Module 57: Spill and Release Reporting Under Federal Regulations Part 1**

*Emergency Planning Requirements  
Emergency Planning and Notification  
Procedures for SARA Title III Compliance  
Regional Response Team  
National Response Team*

### **Module 58: Spill and Release Reporting Under Federal Regulations Part 2**

*DOT Notification Requirements  
Leaking Containers*

### **Module 59: Applicable Laws and Regulations**

*EPA  
Difference Between Laws and Regulations  
Major EPA and OSHA Laws  
Recordkeeping and Notifying OSHA  
OSHA Plan States*

### **Module 60: Overview of DOT Emergency Response Guidebook (ERG)**

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

### **Module 61: 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 62: 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 63: 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 64: 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 65: The Ability to Recognize and Identify Hazardous Materials Part 5**

*Radioactive Containers*

*Type A*

*Type B*

*Excepted*

*Industrial Package I*

*Industrial Package II*

**Module 66: 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 67: HAZMAT Emergency Response Strategy and Tactics**

*Incident Action Plan (IAP)*

*Strategy and Tactics*

**Module 68: HAZMAT Emergency Response Strategic Goal 1 - Isolation**

*HAZMAT Zones*

*Staging Areas*

*Public Protection*

*Shelter in Place*

*Evacuation*

**Module 69: HAZMAT Emergency Response Strategic Goal 2 - Notification of Others**

*Unity of Command*

*Emergency Response Plan*

*Incident Levels*

**Module 70: 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 71: 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*

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

*S. Maide, U.S. EPA*

*Ladder Corridor Decontamination*

*Decontamination Tents and Trailers*

*Hospital Decon*

*Contaminated Victim Decontamination*

*Pets and Animals Decontamination*

**Module 72: 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 73: HAZMAT Emergency Response Strategic Goal 6 - Spill Control (Confinement)**

*Air Releases*

*Foams*

*Ventilation*

*Releases Onto Land*

*Absorption*

*Blanketing*

*Diversions*

*Diking*

*Damming*

*Retention*

*Filter Fence*

*Floating Boom*

*Chemical Control Methods*

*Groundwater Contamination*

**Module 74: 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 75: HAZMAT Emergency Response  
Strategic Goal 8 - Recovery and Termination  
Procedures**

*Incident Transition*

*Termination*

*Debriefing*

*Critiquing*

*After-Action Procedures*

*Reporting*

*Follow Up*

**Module 76: Using Foams**

*Vapor Suppression*

*Using Foams*

*Types of Foams*

*Foam Methods*

**Module 77: Review and Basic Chemistry Part 1**

*Physical Properties Terms*

**Module 78: Review and Basic Chemistry Part 2**

*Physical Properties Terms Continued*

**HAZWOPER Hands-On Simulator**

**Final Exam**

