



TRAINING OUTLINE

COURSE TITLE: _____ **DATE:** _____ **INSTRUCTOR:** _____

LOCATION: _____ **TIME:** _____ **COMPANY:** _____

Safety training was conducted on the above date by the instructor indicated. The following line items identify the topics covered during the training session.

SUMMARY OF TRAINING

1) Introduction

- a) Standards
- b) Why Training
- c) History Behind HAZWOPER
- d) RCRA
- e) CERCLA
- f) SARA
- g) HAZWOPER
- h) HAZWOPER Training
- i) Additional Training
- j) Who is HAZWOPER for?
- k) Incidental Release
- l) Medical Personnel
- m) LQGs
- n) Training Outline
- o) Regulations & Overview
- p) Site Characterization
- q) Confined Spaces
- r) Hazard Recognition
- s) Toxicology
- t) Personal Protective Equipment
- u) Decontamination
- v) Medical Surveillance
- w) Emergency Procedures
- x) Hazard Definitions
- y) Going Forward

2) Regulations & Overview

3) OSHA & NIOSH

- a) History of OSHA
- b) Mission of OSHA



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- c) NIOSH
- d) NIOSH's Mission
- 4) OSHA Standards: An Overview**
 - a) What are OSHA Standards?
 - b) HAZWOPER Standard
 - c) When HAZWOPER Doesn't Apply
 - d) Conflicting or Overlapping Standards
- 5) Employer Responsibilities**
 - a) Hazard-Free Workplace
 - b) Training
 - c) Provide PPE
 - d) Record Keeping
 - e) Reporting
- 6) Employee Rights**
 - a) Safe & Healthful Workplace
 - b) Know About Hazardous Chemicals
 - c) Know About Injuries & Illnesses
 - d) Complain or Request Corrections
 - e) Training
 - f) Access to Exposure & Medical Records
 - g) File a Complaint with OSHA
 - h) Participate in an OSHA Inspection
 - i) Freedom from Retaliation
- 7) Employee Responsibilities**
 - a) Read the OSHA Poster
 - b) Compliance
 - c) Report Hazards
 - d) Report Injuries or Illnesses
 - e) Cooperate with OSHA
- 8) Site Characteristics**
 - a) Standards
 - b) Site Safety & Health Plan
 - c) Safety & Health Risk
 - d) Training
 - e) Personal Protective Equipment
 - f) Medical Surveillance
 - g) Monitoring
 - h) Site Control



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- i) Decontamination
- j) Emergency Response Plan
- k) Confined Spaces
- l) Spill Containment
- m) Site Safety & Health Supervisor

9) Site Evaluation

- a) Hazard Identification
- b) Preliminary Evaluation
- c) Project Team Leader
- d) Offsite Characterization
- e) Interviews & Records
- f) Perimeter Reconnaissance
- g) Sampling
- h) PPE Selection
- i) Onsite Survey
- j) Site Entry Team
- k) Environmental Factors
- l) Wind Barriers
- m) Pathways of Dispersion

10) Risk Assessment & Monitoring

- a) What is Risk?
- b) How Much is Present?
- c) IDLH
- d) Threshold Limit Value
- e) Ceiling Limit
- f) Time-Weighted Average (TWA)
- g) STEL
- h) Permissible Exposure Limits
- i) Recommended Exposure Limits (REL)
- j) Flammable or Explosive
- k) Flashpoint
- l) Ignition Temperature
- m) Ventilation
- n) Monitoring
- o) Ongoing Monitoring
- p) Hazard Recognition

11) Documentation & Communication Plan

- a) Employee Notification



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- b) Documentation
- c) Field Logbook
- d) Hazardous Substance Information Form
- e) Communication Plan
- f) Communication Systems
- g) Internal
- h) External
- 12) **Training**
 - a) Pre-Entry Training
 - b) Training Elements
 - c) General Site Worker
 - d) Occasionally Onsite
 - e) Monitored Areas
 - f) Management & Supervisors
 - g) Equivalent Training
 - h) Trainers
- 13) **Confined Spaces**
 - a) Characteristics of a Confined Space
 - b) Standards
 - c) Two Options for Entry
 - d) Non-Permit Required Confined Space
 - e) Permit-Required Confined Space
 - f) Hazardous Atmosphere
- 14) **Testing**
 - a) Oxygen
 - b) When to Test
 - c) How to Test
 - d) Oxygen Content
 - e) Gas, Vapors, Dust
 - f) Toxic Contaminants
 - g) Sampling
 - h) Sample Draw
 - i) Diffusion
 - j) Monitors
 - k) Testing Equipment
 - l) Measuring Limits
 - m) Operational Limits



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- 15) **Safe Operations**
 - a) Know Your Job
 - b) Assigned Duties
 - c) Entrant
 - d) Attendant
 - e) Entry Supervisor
 - f) Others
 - g) Employer
 - h) Know Your Worksite
 - i) Signage
 - j) Protecting the Entrance
 - k) Permit Program
 - l) Permits
- 16) **Hazards**
 - a) Oxygen Deficiency
 - b) Consumption
 - c) Displacement
 - d) Reaction
 - e) Oxygen Enrichment
 - f) Toxic Atmosphere
 - g) Asphyxiants
 - h) Irritants
 - i) Flammable or Explosive Atmospheres
- 17) **Rescue**
 - a) Evaluate
 - b) Rescue by Non-Entry
 - c) Rescue by Trained Employees
 - d) Rescue by Others
 - e) Rescue Roles
- 18) **Hazard Recognition**
 - a) Standards
- 19) **Hazards**
- 20) **Chemical Hazards**
 - a) Fire & Explosions
 - b) Flammable Solids
 - c) Water-Reactive



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- d) Pyrophoric
- e) Oxidizers
- f) Organic Peroxides
- g) Unstable Reactive
- h) Carcinogens
- i) Ionizing Radiation
- j) Air Quality
- 21) **Biological**
 - a) Hepatitis B & C
 - b) HIV/AIDS
 - c) Other Biological Diseases
- 22) **Environmental Hazards**
 - a) Heat & Cold
 - b) Other Environmental Hazards
- 23) **Physical Hazards**
 - a) Hearing
 - b) Ergonomics
 - c) Lifting
 - d) Pushing & Pulling
 - e) Struck By
 - f) Caught in & Between
 - g) Electrical
 - h) Slips, Trips, Falls
 - i) Heights
- 24) **Identification**
 - a) Safety Data Sheets
 - b) Hazard Recognition Plan
 - c) Labels
 - d) Six Elements
 - e) Manufacturer Information
 - f) Product Identifier
 - g) Signal Words
 - h) Hazard Statement
 - i) Precautionary Statements
 - j) Pictograms
 - k) Health Hazard
 - l) Flame
 - m) Exclamation Mark



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- n) Gas Cylinder
- o) Corrosion
- p) Exploding Bomb
- q) Flame Over a Circle
- r) Skull & Crossbones
- s) Environment
- t) DOT Pictograms
- u) National Fire Protection Agency
- v) HMIS
- w) Onsite Labeling
- x) Hazardous Waste Identification Process
- y) Hazardous Waste Site Characteristics
- z) Ignitibility
- aa) Corrosivity
- bb) Reactivity
- cc) Toxicity
- dd) Training
- 25) **Toxicology**
 - a) Standards
- 26) **Chemical Interactions with the Body**
 - a) Chemical Interaction with the Body
 - b) Individual Characteristics
 - c) Toxic Chemicals
 - d) Highly Toxic
 - e) Dose & Duration
- 27) **Routes of Exposure**
 - a) Inhalation
 - b) Cutaneous (Skin & Eye
 - c) Ingestion
 - d) Injection
- 28) **States of Matter**
 - a) Solids
 - b) Liquids
 - c) Gases
- 29) **Types of Toxicants**
 - a) Conditions & Symptoms: Acute & Chronic
 - b) Asphyxiants
 - c) Neurotoxins



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- d) Pathogens
- e) Carcinogens
- f) Allergens
- g) Irritants & Sensitizers
- h) Sensitizers
- i) Teratogens
- j) Mutagens
- k) Ionizing Radiation
- l) Non-Ionizing Radiation
- 30) **Target Organ Toxicity**
 - a) Hepatotoxins (Liver)
 - b) Nephrotoxins (Kidney)
 - c) Neurotoxins (Nervous System)
 - d) Hematopoietic Toxins (Blood)
 - e) Pulmonary Toxins (Lungs)
 - f) Reprotoxic (Reproductive System)
- 31) **Exposure Standards**
 - a) IDLH
 - b) Threshold Limit Values (TLVs)
 - c) Lethal Dose (LD50)
 - d) Limit Measurements
 - e) Chemical Combinations
 - f) Additive
 - g) Synergistic
 - h) Potentiation
 - i) Antagonistic
- 32) **Safe Work Practice**
 - a) Hierarchy of Controls
 - b) Elimination or Substitution
 - c) Administrative Controls
 - d) Training
 - e) Engineering Controls
 - f) PPE
- 33) **Personal Protective Equipment**
 - a) Standards
 - b) Controls
- 34) **PPE Program**
 - a) PPE Training



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- b) Hazard Assessment
 - c) Selecting PPE
 - d) PPE Maintenance
 - e) Program Evaluation
- 35) **PPE Classifications**
- 36) **Respirators**
 - a) Air-Purifying Respirator
 - b) Mechanical Filter Respirators
 - c) Chemical Cartridge Respirators
 - d) Powered Air-Purifying Respirators
 - e) Air-Supplying Respirators
 - f) Air-Line Respirators
 - g) Self-Contained Breathing Apparatus (SCBA)
 - h) Inspection
 - i) Cleaning & Storage
 - j) Training
 - k) Medical Evaluation
 - l) Fit Testing
 - m) User Seal Check
- 37) **Head Protection**
 - a) Hard Hats
 - b) Hard Hat Maintenance
 - c) Eye & Face Protection
 - d) Glasses, Goggles, & Face Shields
 - e) Safety Glasses
 - f) Goggles
 - g) Eye Glasses & Contact Lenses
 - h) Face Shields
 - i) Hearing Protection
- 38) **Body Protection**
 - a) Overalls & Coveralls
 - b) Hooded Chemical-Resistant Suits
 - c) Fully-Encapsulated Suits
- 39) **Hand Protection**
 - a) Chemical Resistant Gloves
 - b) Butyl & Viton
 - c) Neoprene
 - d) PVC



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- e) PVA
- f) Nitrile
- g) Proper Care of Protective gloves
- h) Other Gloves
- 40) **Foot Protection**
 - a) Steel Toed Boots
 - b) Chemical Resistant Boots
 - c) Boot Covers
 - d) PPE Cleaning & Storage
- 41) **PPE Levels**
 - a) Levels of PPE
 - b) Level A
 - c) Level B
 - d) Level C
 - e) Level D
 - f) Donning PPE
- 42) **Hazards**
 - a) Routes of Exposure
 - b) Inhalation
 - c) Cutaneous
 - d) Ingestion
 - e) Injection
 - f) Permeation
 - g) Degradation
 - h) Breakthrough Time
 - i) Heat & Cold Stress
 - j) Air Supply Consumption
 - k) Additional PPE
 - l) Communication
 - m) Psychological Hazards
- 43) **Decontamination**
- 44) **Factors of Contamination**
 - a) Exposure Time
 - b) Concentration
 - c) Temperature
 - d) Reactivity
 - e) Physical State of Waste
 - f) Size of Molecule & Pore Size



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- 45) **Contamination Prevention**
 - a) Work Practice Controls
 - b) Remote Sampling
 - c) Equipment Protection
 - d) Encasement
 - e) Disposables
- 46) **Decontamination Plan**
 - a) Decontamination
 - b) Decontamination Equipment
 - c) For Personnel & PPE
 - d) Heavy Equipment Decontamination
 - e) Decontamination Stations
 - f) Disposal of Clothing & Equipment
 - g) Disposal
 - h) Disposal Considerations
 - i) Unknown Substances
 - j) Laundering
 - k) Showers & Changing Rooms
- 47) **Decontamination Methods**
 - a) Physical Removal
 - b) Loose Contaminants
 - c) Electrostatics
 - d) Adhering Contaminants
 - e) Solidification
 - f) Absorption
 - g) Adhesion
 - h) Solidification Pros
 - i) Solidification Cons
 - j) Vapor Suppression
 - k) Chemical Removal
 - l) Dissolving Contaminants
 - m) Solubility
 - n) Surfactants
 - o) Inactivation
 - p) Sterilization
- 48) **Decontamination Procedures**
 - a) Aviation Industry
 - b) Airline SOPs



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- c) Checklists
- d) Decontaminations Procedures
- e) Standard Operating Procedures
- f) Considerations Before Donning
- g) Stress
- h) Donning
- i) Evaluation
- j) Decontamination Line
- k) Exclusion Zone
- l) Contamination Reduction Zone
- m) Support Zone
- n) Decontaminating Equipment
- o) Evaluation
- p) Offsite
- q) Onsite Evaluation
- r) Natural Light
- s) Ultraviolet Light
- t) Wire Sampling
- u) Cleaning Solution Analysis
- v) Program Evaluation
- w) Training
- x) Communication Plan
- y) Emergency Decontamination
- 49) **Medical Surveillance**
 - a) Standards
- 50) **Developing a Program**
 - a) Hazard Recognition
 - b) Establishing Protocols
 - c) Addressing Specific Needs
 - d) Management Participation
 - e) Leadership
 - f) Safety Advisor
 - g) Role Identification
 - h) Predetermined Responses
 - i) Nonjob Illnesses
 - j) Communication with Medical Professionals
 - k) Maps & Directions
 - l) Other Considerations



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- 51) **Pre-Employment Screening**
 - a) Medical & Occupational History
 - b) Physical Exam
 - c) Setting a Baseline
 - d) Establish Physical Capacity
 - e) Ability to Work with PPE
 - f) Psychological Complications
 - g) Pulmonary Functions Tests
 - h) Audiometric Tests
 - i) Vision Tests
 - j) Irregularities
 - k) Physician's Written Opinion
- 52) **Periodic Medical Exams**
 - a) Frequency
 - b) Full vs. Partial Exams
 - c) Termination Exam
- 53) **Medical Records**
 - a) Accident Reports
 - b) Medical Complaints
 - c) Maintenance of Records
 - d) Latency Period
 - e) Insurance
 - f) Advance Directives
 - g) Living Will
 - h) Durable Power of Attorney
 - i) Mental Health Directive
- 54) **Program Review**
 - a) Accident Investigations
 - b) Study Tendencies
 - c) Implementing Updates
 - d) Conclusion
- 55) **Emergency Procedures**
 - a) Case Study
 - b) Standards
- 56) **Pre-Emergency Planning**
 - a) Site Health Safety
 - b) Emergency Response Plan
 - c) ERP Content Requirements



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- 57) **Personnel**
 - a) Personal Roles
 - b) Training
 - c) Chain of Command
 - d) Senior Official
 - e) Incident Commander
 - f) Hazardous Materials Technician
 - g) First Responder: Operations Level
 - h) First Responder: Awareness Level
 - i) Chain of Command Training
 - j) Offsite Responders
 - k) Federal Response Organizations
 - l) Onsite Civilians
 - m) Communications
- 58) **Worksite Safety**
 - a) Emergency Recognition & Prevention
 - b) Site Security & Control
 - c) Site Mapping
 - d) Work Zones
 - e) Exclusion Zones
 - f) Contamination Reduction Zone
 - g) Support Zone
 - h) Safe Distances
 - i) Refuges
 - j) Evacuation Routes
 - k) Personal Locator Systems
 - l) Passive Personal Locator System
 - m) Active Personal Locator System
 - n) Additional Security Measures
- 59) **Emergency Procedures Part 1**
 - a) Initiating Emergency Response
 - b) Assessing the Emergency
 - c) Emergency Evacuation
 - d) Public Evacuation
 - e) Emergency Transportation
 - f) Victim Recovery Procedures
 - g) Emergency Decontamination
 - h) Emergency First Aid



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- i) Drum & Container Handling
- j) Pressurized Drums or Containers
- k) Opening Drums or Containers
- 60) **Emergency Procedures Part 2**
 - a) Spill Response
 - b) Spill Control
 - c) Spill Elimination
 - d) Overpack Drum
 - e) Absorption Materials
 - f) Bonding Agents
 - g) Neutralizing Materials
 - h) Vapor Control
 - i) Fire Control
 - j) Selecting a Fire Extinguisher
 - k) Water Fire Extinguishers
 - l) Foam Extinguishers
 - m) Cleanup
 - n) Response Follow Up
 - o) Documentation
- 61) **Conclusion**
 - a) Practical Review
 - b) Congratulations