

HAZARDOUS WASTE OPERATIONS & EMERGENCY RESPONSE

HAZWOPER

To fulfill classroom requirements of OSHA 29 CFR 1910.120(e)&(q).

40 HOUR COURSE OUTLINE

OVERVIEW

This course provides the 40-hour safety training requirement mandated by OSHA 29 CFR 1910.120. Workers attending this course will cover health and safety procedures, and personnel protection during work operations at hazardous material sites.

Each day contains hands on and tabletop exercises with a dress out exercise on the final day.

DAY ONE

OPENING

1. Who is COMPLIANCE SOLUTIONS
2. Course introduction

OSHA REGULATIONS DISCUSSION

1. What is OSHA and how does it work?
 - A. Employer and employees rights and responsibilities
2. Overview of Environmental Legislation
 - A. Comprehensive Environmental Response Compensation and Liability Act of 1986 (CERCLA)
 - B. Superfund Amendments and Reauthorization Act
 - C. Resource Conservation and Recovery Act - 11976 (RCRA)
3. Overview of 29 CFR 1910.120

GENERAL SAFETY HAZARDS

1. Types of hazards
2. Personal Safety Issues
3. General Safety Issues
4. Fall Protection
5. Excavation Safety
6. Hand and Power Tools
7. Lock out/Tag out
8. Heavy Equipment

PLANNING AND ORGANIZATION

1. Site Characterization
2. Health and Safety Plans

HAZARD COMMUNICATION FOR HAZWOPER

1. NFPA 704
2. DOT System
3. HMIS III
4. Material Safety Data Sheets
5. Other Identification Systems

CHEMICAL HAZARD ID SYSTEMS

1. Properties of chemicals
 - A. Toxic
 - B. Reactive
 - C. Ignitable
 - D. Corrosive
 - E. Radioactive

DAY TWO

TOXICOLOGY

1. Acute vs. Chronic
2. Immediate vs. Delayed Effects
3. Reversible vs. Irreversible
4. Routes of entry
 - A. Inhalation
 - B. Absorption
 - C. Ingestion
 - D. Injection
 - E. Occular
2. Chemical interaction effects

3. Target organ responses
4. Dose/Response relationship
5. Measuring toxins

IONIZING RADIATION

1. Fission
2. Particles
 - A. Alpha
 - B. Beta
 - C. Gamma
 - D. Neutrons
3. Radiation Meters
4. Exposure Doses

RESPIRATORY PROTECTION

1. Respiratory Protection Programs
 - A. Selection
 - B. Training
 - C. Sanitizing
 - D. Inspection
 - E. Maintenance

CHEMICAL PROTECTIVE CLOTHING

1. Fabric Properties
2. Levels of Protection
 - A. Level A
 - B. Level B
 - C. Level C
 - D. Level D
 - E. Modifications
3. CPC Factors

HEAT STRESS

1. Factors
2. Heat Illnesses
 - A. Heat Rash
 - B. Heat Cramps
 - C. Heat Syncope
 - D. Heat Exhaustion
 - E. Heat Stroke
3. Related Stressors
4. Pre/Post Entry Assessments
5. Prevention

MEDICAL SURVEILLANCE

1. Surveillance
 - A. Pre-Assignment Examinations
 - B. Periodic Examinations
 - C. Termination Examinations
2. Treatment
 - A. Emergency
 - B. Non-emergency
3. Record Keeping

DAY THREE

METERS AND MONITORING

1. Reasons for monitoring
2. Sampling Techniques
3. Meter Characteristics

3980 Quebec St, 2nd Floor, Denver, CO 80207

Tel: 800.711.2706 303.307.9220 Fax: 800.511.4944 www.csreqs.com

4. Combustible Gas Indicators
5. Photo Ionization Detectors
6. Flame Ionization Detectors
7. Vapor Analyzers
8. Toxic Meters
9. Multi-gas Analyzers
10. Colorimetric Detectors
11. Sound Meters
12. Heat Stress Monitors
13. Instrument Safety
14. Meter Limitations

FIRE PROTECTION REQUIREMENTS

1. Classes of Fire
 - A. Class A
 - B. Class B
 - C. Class C
 - D. Class D
 - E. Class K
2. Fire Extinguishers
3. Open Yard Storage
4. Fire Brigades
5. Foams

CONFINED SPACES

1. Overview
2. Statistics
3. Training
4. Non-permit Required Confined Spaces
5. Permit Required Confined Spaces
6. Entrants
7. Attendants
8. Supervisors
9. Confined Space Rescue

HANDLING DRUMS AND CONTAINERS

1. Container Hazards
2. Inspecting Containers
3. Classification of Containers
4. Handling Containers
5. Staging
6. Bulking
7. Shipping

SAMPLING AND PACKAGING

1. Sampling Locations
2. Sample Planning
3. Sample Types
4. Sampling Strategies
 - A. Biased
 - B. Unbiased
5. Field Logs
6. Chain of Custody

DECONTAMINATION

1. Decontamination Planning
2. Decontamination Methods
 - A. Physical Removal
 - B. Chemical Deactivation
 1. Decontamination Solutions
3. Decontamination Effectiveness
4. Decontamination Procedures
5. Emergency Decontamination

SITE EMERGENCIES

1. Personal Emergencies
2. Work Site Emergencies
3. Public Emergencies
4. Causes of Emergencies
5. Emergency Response Plans
 - A. Identification of Personnel
 1. Incident Commander
 2. Health and Safety Officer
 3. Response Teams
 - a. Entry
 - b. Rescue
6. Site Maps
7. Site Control
8. Accountability
9. Emergency Evacuation
10. Coordination with Government Agencies
 - A. National Contingency Plan
11. Emergency Site Safety

DAY FOUR

OPENING

HAZWOPWER REVIEW

1. Health and Safety Plan Review
 - A. Organizational Structure
 - B. Comprehensive Work Plan
 - C. Site Specific Health and Safety Plan
2. Retraining Requirements

HAZARDOUS WASTE

1. Listed Waste
 - A. CERCLA
 - B. TSCA
 - C. DOT
 - D. EPCRA
2. Hazardous Waste Remediation
3. Hazardous Waste Effects
 - A. Toxic
 - B. Reactive
 - C. Ignitable
 - D. Corrosive
 - E. Radioactive
 - F. Persistent
 - G. Bioaccumulative
4. Remediation Exercise

HAZARD COMMUNICATIONS

1. NFPA 704
2. DOT
3. HMIS III
4. MSDS
5. Tabletop Exercise

HANDLING HAZARDOUS MATERIALS

1. Site Control Plans
 - A. Site Maps
 - B. Two-person Rules
 - C. Communications
 - D. Standard Operating Procedures
 - E. Medical Plans
2. Tabletop Exercise

UPDATES/NEWS/CASE STUDIES

DRESS OUT EXERCISE

FINAL EXAMINATION