

1. Brief History of Health and Safety Law

- 1.1 Early Provisions
- 1.2 The Age of Industrialization
- 1.3 Into the 20th Century
- 1.4 The Depression
- 1.5 World War II
- 1.6 The New Era of Industry
- 1.7 The Health and Safety Crisis of the 1960's
- 1.8 The OSH Act
- 1.9 Implementation of the OSH Act
- 1.10 Hazardous Waste Operations
- 1.11 Sources of Information
- Appendix: Elements of 29 CFR – Labor Law

2. Regulations

- 2.1 Regulations Overview
- 2.2 The Scope of OSHA – Federal and State
- 2.3 Federal Rules Governing Health and Safety for Hazardous waste Operations
- 2.4 The Occupational Safety and Health Administration and the Environmental Protection Agency
- 2.5 Other Significant Occupational Health and Safety Groups
- 2.6 OSHA Requirements for Hazardous Waste Operations
- 2.7 Other Pertinent Regulations
- 2.8 Definitions
- 2.9 Sources of Information
- Appendix A:** Hazard Communication Standard, 29 CFR 1910.1200
- Appendix B:** National Contingency Plan, 40 CFR 300
- Appendix C:** SARA Title III
- Appendix D:** Sample MSDS
- Appendix E:** Engineering Controls

3. Chemistry of Hazardous Substances

- 3.1 Nature of Chemical Substances
- 3.2 Physical States of Matter
- 3.3 Chemical Terms Relating to Fire and Explosion Hazards
- 3.4 Other Chemical Terms
- 3.5 Sources of Information

4. Basic Toxicology

- 4.1 Dose/Response Relationships
- 4.2 Exposure Routes
- 4.3 Exposure Limits

- 4.4 Limitations of Exposure Values
- 4.5 Sensitivity
- 4.6 Chemical Interaction
- 4.7 Acute and Chronic Toxicity
- 4.8 Other Terms Used in Toxicology
- 4.9 Sources of Information

5. Physical and Environmental Hazards

- 5.1 Explosion and Fire
- 5.2 Oxygen Deficiency
- 5.3 Biologic Hazards
- 5.4 Topographic and Physical Hazards
- 5.5 Electrical Hazards
- 5.6 Heat Stress
- 5.7 Cold Stress
- 5.8 Noise
- 5.9 Other Potential Hazards
- 5.10 Sources of Information

6. Radiation Hazards

- 6.1 Types of Radiation
- 6.2 Toxicology of Radiation Exposure
- 6.3 Radiation Dosage and Related Terms
- 6.4 Radiation Controls
- 6.5 Personal Monitoring
- 6.6 Radiation in the Environment
- 6.7 Transportation Controls
- 6.8 Sources of Information

7. Medical Monitoring

- 7.1 Developing a Program
- 7.2 Pre-Placement Screening
- 7.3 Periodic Medical Examinations
- 7.4 Exposure Specific Exams
- 7.5 Termination Examination
- 7.6 Emergency Treatment
- 7.7 Nonemergency Treatment
- 7.8 Medical Records
- 7.9 Program Review
- 7.10 Sources of Information

8. Air Monitoring

- 8.1 Selection Criteria
- 8.2 Combustible Gas Indicators
- 8.3 Oxygen Meters
- 8.4 Photo-ionization Detectors
- 8.5 Flame Ionization Detectors
- 8.6 Colorimetric Indicator Tubes
- 8.7 Radiation Meters
- 8.8 Miscellaneous Instruments

- 8.9 Limitation of Equipment
- 8.10 Sources of Information

9. Personal Protective Equipment

- 9.1 Types of Personal Protection
- 9.2 The Respiratory Protection Program
- 9.3 Selection of Respiratory Protection
- 9.4 Conditions Affecting Respirator Use
- 9.5 Air-Purifying Respirators
- 9.6 Air-Supplying Respirators (ASR)
- 9.7 Protective Clothing and Accessories
- 9.8 Sources of Information

10. Decontamination

- 10.1 Decontamination plan
- 10.2 Prevention of Contamination
- 10.3 Types of Contamination
- 10.4 Decontamination Methods
- 10.5 Testing the Effectiveness of Decontamination
- 10.6 Decontamination Facility Design
- 10.7 Decontamination Equipment Selection
- 10.8 Disposal Methods
- 10.9 Personal Protection
- 10.10 Sources of Information

11. Planning and Organization

- 11.1 Organizational Structure
- 11.2 Work Plan
- 11.3 Site Health and Safety Plan
- 11.4 Safety Meetings and Inspections
- 11.5 Sources of Information

12. Site Characterization

- 12.1 Off-Site Characterization
- 12.2 On-Site Survey
- 12.3 Information Documentation
- 12.4 Monitoring
- 12.5 Exposure Record Retention
- 12.6 Sources of Information

13. Site Control

- 13.1 Site Map
- 13.2 Site Preparation
- 13.3 Site Work Zones
- 13.4 The Buddy System
- 13.5 Site Security
- 13.6 Communication Systems
- 13.7 Safe Work Practices
- 13.8 Sources of Information

14. Emergency Planning and Spill Control

- 14.1 Planning
- 14.2 Personnel
- 14.3 Training
- 14.4 Emergency Response Actions
- 14.5 Confinement and Containment
- 14.6 Communications
- 14.7 Safe Distances and places of Refuge
- 14.8 Evacuation Routes and Procedures
- 14.9 Decontamination
- 14.10 Medical Treatment and First Aid
- 14.11 Documentation
- 14.12 Sources of Information

15. Example of a Site Health and Safety Plan (HASP)

- 15.1 Development and Content
- 15.2 Contents of a Site HASP
- 15.3 Sources of Information
Site-Specific Health and Safety Plan
(Example)

16. Containers

- 16.1 Inspection
- 16.2 Planning
- 16.3 Handling
- 16.4 Opening Containers
- 16.5 Sampling Contents of Containers
- 16.6 Characterization of Contents
- 16.7 Staging Containers
- 16.8 Bulking Containers
- 16.9 Shipping containers
- 16.10 Sources of Information

17. Transportation of Hazardous Materials and Wastes

- 17.1 Federal Regulations
- 17.2 Definition and Classification of Hazardous Materials
- 17.3 Definition of Hazardous Waste Generators and Transporters
- 17.4 Responsibilities of the Generator in Transporting Hazardous Waste
- 17.5 Responsibilities of the Transporter
- 17.6 Responsibilities of the Receiving Facility
- 17.7 DOT Labeling and EPA Marketing
- 17.8 DOT Placarding
- 17.9 Sources of Information

18. Confined Space

- 18.1 Atmospheric Hazards
- 18.2 Other Confined Space hazards
- 18.3 Definition of Confined Space
- 18.4 OSHA Confined Space
- 18.5 Sources of Information

19. Excavating, Trenching, And Shoring

- 19.1 Introduction
- 19.2 Excavation and Trenching Regulations
- 19.3 Preparation and Excavation Safety
- 19.4 Protective Systems
- 19.5 Soil Classification
- 19.6 Sources of Information

20. Resources

- 20.1 Published Sources of Hazardous Substances Information
- 20.2 Computer Databases of Hazardous Substances Information
- 20.3 Other Sources of Hazardous Substances Information