



## Occupational Safety & Health

### Asbestos Hazard Awareness

#### Requirement References:

- OSHA 29 CFR 1910.1001 - Asbestos Standard for General Industry
- OSHA 29 CFR 1926.1101 - Asbestos Standard for the Construction Industry

#### Goal:

The goal of this lesson is to improve the health and safety of employees by providing required training regarding the awareness of asbestos hazards.

#### Objectives:

- Identify the health effects associated with asbestos exposure, including the relationship between smoking and exposure to asbestos in the development of lung disease.
- Identify the control measures and appropriate actions to minimize the possibility of being exposed to or inhaling asbestos fibers.
- Identify his/her rights and responsibilities when working with asbestos-containing materials.

### Basic First Aid

#### Requirement References:

- 29 CFR 1910.151
- 29 CFR 1918 App V

#### Goal:

Each employee will know how to initially respond to an accident or injury situation, become aware of first aid guidelines and “good practices,” and be able to properly treat injuries and respond to emergencies.

#### Objectives:

- Identify the correct actions to take during an initial response to an accident or first aid situation.
- Identify the correct actions to take when providing first aid in situations involving bleeding.
- Identify the symptoms of shock and the correct actions to take when providing first aid in situations involving shock.
- Identify the correct actions to take when providing first aid in situations involving burns.
- Identify the correct actions to take when providing first aid in electrical accident situations.
- Identify the symptoms associated with a head injury and the correct actions to take when providing first aid in situations involving potential head injuries.
- Identify when to suspect a spinal injury and the correct actions to take when providing first aid in situations involving potential spinal injuries.
- Identify the correct actions to take when providing first aid in situations involving fractures.
- Identify the signs and symptoms of poisonings and the correct actions to take when providing first aid in poisoning accidents.
- Identify the signs and symptoms associated with environmental emergencies including snakebites and heat and cold stress and the correct actions to take when providing first aid in these situations.



## Basic Respiratory Protection

### Requirement References:

- 1910.134 - Respiratory protection: Personal Protective Equipment

### Goal:

To ensure users are qualified and properly trained in the use and maintenance of respirators.

### Objectives:

- Identify the types of occupational respiratory hazards and possible health effects of respiratory exposure.
- Identify how engineering and administrative control measures are applied to minimize or eliminate inhalation exposure to respiratory hazards.
- Identify the three qualifications that must be in place before an employee can use a respirator.
- Identify the types of respirators and the criteria used to select the appropriate respiratory protection, including Assigned Protection Factors (APFs).
- Identify the requirements for respirator use, including how to ensure a proper seal and how to properly don and doff.
- Identify the requirements for proper respirator maintenance and storage.
- Identify the correct response to respirator emergency situations.

## Behavior-Based Safety

### Requirement References:

- Occupational Safety and Health Act of 1970, Section 8a
- 29 CFR 1926.20 General Safety and Health Provisions
- 29 CFR 1926.21 Safety Training and Education

### Goal:

The learner will correctly apply the principles of Hazard Elimination, Personal Contribution, Injury Prevention, and Self-Evaluation when implementing behavior-based safety in the workplace.

### Objectives:

- Identify the definitions and terms associated with behavior-based safety.
- Recognize how jobsite hazards are eliminated through behavior-based safety efforts.
- Identify how to contribute to the success of a behavior-based safety program.
- Understand how to prevent workplace injuries using a behavior-based safety program.
- Recognize how to perform a behavior-based safety self-evaluation.



## Bloodborne Pathogens (BBP)

### Requirement References:

- 29 CFR 1910.1030 Subpart Z, Toxic and Hazardous Substances, Bloodborne Pathogens
- 29 CFR 1910.1030 Appendix A - Hepatitis B Vaccine Declination (Mandatory)
- 29 CFR 1904.7 - General recording criteria
- 29 CFR 1904.8 - Recording criteria for needlestick and sharps injuries.
- CPL 02-02-069 - CPL 2-2.69 - Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens
- OSHA Fact Sheet 02/01/1993. Most frequently asked questions concerning the bloodborne pathogen standard.
- U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) Guidance Documents & Resources
- 29CFR 1910.1020 - Access to Employee Medical and Exposure Records
- OSHA Standard Interpretations for 1910.1030 - Bloodborne Pathogen
- UNAIDS. AIDS Epidemic Update, December, 2003.
- Fleming, P.L. et al. HIV Prevalence in the United States, 2000. 9th Conference on Retroviruses and Opportunistic Infections, Seattle, Wash., Feb. 24-28, 2002. Abstract 11.
- Centers for Disease Control and Prevention (CDC). HIV and AIDS - United States, 1981-2001. MMWR 2001;50:430-434.
- Centers for Disease Control and Prevention (CDC). HIV Prevention Strategic Plan Through 2005. January 2001.
- Centers for Disease Control and Prevention (CDC). HIV/AIDS Surveillance Report 2002;14:1-40.
- National Institute of Occupational Safety and Health (NIOSH)

### Goal:

To help employers provide a safe and healthful work environment for their employees and minimize the possibility of employee exposure to bloodborne pathogens.

### Objectives:

- Identify the bloodborne pathogens of most concern in the workplace.
- Identify the requirements for an exposure control plan.
- Identify the engineering and work practice controls used to prevent contact with, or infection from, contaminated body fluids.
- Be able to recognize an "at risk" occupation that would be included in a formal Bloodborne Pathogen Program.
- Identify the signs, labels, and color-coding used to warn of biohazards and bloodborne pathogens.
- Identify how bloodborne pathogens are transmitted.
- Identify the requirements for a sharps injury log.
- Identify the basic precautions to prevent exposure, including the definition of Universal Precautions.
- Identify the responsibilities of general employees when they encounter a blood spill.
- Identify the appropriate response in the event of a potential exposure to bloodborne pathogens.



## California - Bloodborne Pathogens (BBP)

### Requirement References:

#### State of California

- CCR, Title 8, Group 16, Control of Hazardous Substances, Section 5193, Bloodborne Pathogens
- CCR, Title 8, Bloodborne Pathogens, Appendix A - Hepatitis B Vaccine Declination (Mandatory)
- CCR, Title 8, Employer Records of Occupational Injuries and Illnesses, Sections 1433 to 1400
- Cal/OSHA Consultation Service, Safety and Health Fact Sheet, Safety Needles and Needless Systems
- California Health and Safety Code, Sections 121055 to 12070
- Cal/OSHA Publication – *Exposure Control Plan for Bloodborne Pathogen*
- Cal/OSHA Publication - *A Best Practices Approach for Reducing Bloodborne Pathogens Exposure*
- Cal/OSHA Enforcement Procedures for CCR, Title 8, Section 5193, Division of Occupational Safety and Health Policy and Procedures Manual
- California Assembly Bill AB 1208 (1998) – Bloodborne Pathogens

#### Federal

- 29 CFR 1910.1030 Subpart Z, Toxic and Hazardous Substances, Bloodborne Pathogens
- 29 CFR 1910.1030 Appendix A - Hepatitis B Vaccine Declination (Mandatory)
- 29 CFR 1904.7 - General recording criteria
- 29 CFR 1904.8 - Recording criteria for needlestick and sharps injuries.
- CPL 02-02-069 - CPL 2-2.69 - Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens
- OSHA Fact Sheet 02/01/1993. Most frequently asked questions concerning the bloodborne pathogen standard.
- U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) [Guidance Documents & Resources](#)

#### Other

- UNAIDS. [AIDS Epidemic Update, December, 2003.](#)
- Fleming, P.L. et al. [HIV Prevalence in the United States, 2000.](#) 9th Conference on Retroviruses and Opportunistic Infections, Seattle, Wash., Feb. 24-28, 2002. Abstract 11.
- Centers for Disease Control and Prevention (CDC). [HIV and AIDS - United States, 1981-2001.](#) MMWR 2001;50:430-434.
- Centers for Disease Control and Prevention (CDC). [HIV Prevention Strategic Plan Through 2005.](#) January 2001.
- Centers for Disease Control and Prevention (CDC). [HIV/AIDS Surveillance Report 2002;](#)14:1-40.
- National Institute of Occupational Safety and Health (NIOSH)

#### Goal:

This training is provided to help employers provide a safe and healthful work environment for their employees and minimize the possibility of employee exposure to bloodborne pathogens.



## California - Bloodborne Pathogens (BBP) (cont'd)

### Objectives:

- Identify the bloodborne pathogens that pose the most serious threat of exposure in the workplace.
- Identify the characteristics and symptoms of HIV, HBV, and HCV.
- Identify how HIV, HBV, and HCV pathogens are and are not transmitted.
- Identify the basic precautions to prevent exposure, including the use of Universal Precautions and hepatitis B vaccination.
- Identify the requirements for an exposure control plan.
- Identify the signs, labels, and color-coding used to warn of biohazards and bloodborne pathogens.
- Identify the engineering and work practice controls used to prevent contact with, or infection from, blood, body fluids or other potentially infectious materials.
- Identify job classifications and common workplace tasks with reasonable anticipation of contact with blood, body fluids, or other potentially infectious materials.
- Identify the responsibilities of general employees when they encounter a blood spill.
- Identify the appropriate response in the event of a potential exposure to bloodborne pathogens.
- Identify the requirements for a sharps injury log.



## Cardiopulmonary Resuscitation (CPR)

### Requirement References:

- OSHA 29 CFR 1910.151(b) Standard Title: Medical services and first aid. SubPart Number: K
- U.S. Department of Labor, OSHA Technical Information Bulletin: Cardiac Arrest and Automated External Defibrillators (AEDs) - TIB 01-12-17
- 2005 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care

### Goal:

The goal of this lesson is to provide lay rescuers with refresher training or supplement training from a practical hands-on CPR course on how to respond confidently to a respiratory, cardiac, or choking emergency until professional medical help arrives.

### Objectives:

Upon completion of this lesson, the student will be able to:

- Recognize how to initially respond to a respiratory or cardiac emergency and how to protect yourself if blood is present.
- Recognize the signs of a respiratory emergency and the steps for opening the airway with a head tilt-chin lift maneuver and giving rescue breathing to an adult.
- Recognize the steps for giving cardiopulmonary resuscitation (CPR) to an adult.
- Recognize the signs of cardiac arrest and the steps for providing early defibrillation with an automated external defibrillator (AED) to an adult.
- Recognize the signs of a choking emergency and the steps for giving abdominal thrusts to clear the airway for a conscious adult.

## Chemical Safety

### Requirement References:

- OSHA Standards, Title 29 CFR, Part 1910 "General Industry", Section 1910.1450, "Occupational Exposures to Hazardous Chemicals in Laboratories", generally referred to as the "Laboratory Standard" and Section 1910, Subpart Z, "Toxic and Hazardous Substances"
- OSHA Standards, Title 29CFR, Part 1910, Section 1910.1200, Hazard Communication
- OSHA Standards, Title 29CFR, Part 1910, Section 1910.132, Personal Protective Equipment - General Requirements
- OSHA Standards, Title 29CFR, Part 1926, Section 64 App A, List of Highly Hazardous Chemicals, Toxics and Reactives

### Goal:

The goal of this lesson is to provide required awareness training in the occupational hazards common to the handling and use of chemicals, methods and techniques used for evaluating and minimizing chemical exposure, measures employees can take to protect themselves from chemical hazards, safe practices for chemical storage and waste disposal, and the correct response to emergency situations involving chemical spills.

### Objectives:

- Identify physical and health hazards common to the handling and use of chemicals.
- Identify methods and techniques used for evaluating and minimizing chemical exposure.
- Identify measures employees can take to protect themselves from chemical hazards.
- Identify safe practices for chemical storage and chemical waste disposal.
- Identify the correct response to emergency situations involving chemical spills.



## Chlorine Safety

### Requirement References:

- OSHA Standard, 29 CFR 1910.1000 and Table Z-1: Toxic and Hazardous Substances
- OSHA Standard, 29 CFR 1910.1200, (g)(2)(X). Hazard Communication
- Hazard Materials Subpart H pg 22; subpart Z Vinyl Chloride pg 46 of OSHA Training 29 CFR 1910.1000, Table Z-1
- OSHA 29 CFR 1910 and the Emergency Planning and Community Right-to-Know Act (EPCRA)
- OSHA 29 1910.119, Appendix A
- OSHA 29 1910.1450, Appendix A for Labs
- OSHA 29 1910.261 for Pulp and Paper Mills
- OSHA 29 1926.64, Appendix A for Construction

### Goal:

The goal of this lesson is to provide awareness training to help workers recognize the occupational hazards and health effects of chlorine exposure and the exposure controls.

### Objectives:

- Recognize the hazards of chlorine in the workplace.
- Identify the health effects of chlorine exposure.
- Identify exposure controls to protect against chlorine hazards.
- Identify how to respond to a chlorine spill or release.

## Compressed Gas Safety

### Requirement References:

- Safe Handling of Compressed Gases in Containers, CGA P-1 1984, Compressed Gas Association, Inc.
- OSHA Standards Interpretation and Compliance Letters 03/15/1990 - The proper handling of compressed gas cylinders particularly with reference to the moving of cylinders from place to place

### Goal:

The goal of this lesson is to make all employees aware of the safety requirements when working with or around Compressed Gas.

### Objectives:

- Identify the methods for identifying the contents of a compressed gas cylinder.
- Identify the proper methods for transporting and storing compressed gas cylinders.
- Identify the proper methods for installation and use of compressed gases.
- Identify the proper methods for operation of regulators for compressed gas cylinders.



## Confined Spaces - Entry Level

### Requirement References:

- CFR 1910.146, Permit-required confined spaces.
- CFR 1910.146, App B, Procedures for Atmospheric Testing. Subpart J
- CFR 1910.146, App D, Confined Space Pre-Entry Check List
- CFR 1910.146, App E, Sewer System Entry.
- ANSI Z117.1-1989, American National Standard: Safety Requirements for Confined Spaces.

### Goal:

The goal of this lesson is to make employees aware of the hazards that exist in a permit-required confined space and recognize that special precautions, training, and an approved Confined Space Entry Permit or approved Routine Entry Procedures are required for entry.

### Objectives:

- Identify the responsibilities of a confined space entrant
- Identify the responsibilities of a confined space attendant
- Identify the responsibilities of a confined space entry supervisor

## Confined Spaces

### Requirement References:

- CFR 1910.146 Permit-required confined spaces.
- CFR 1910.146 App B Procedures for Atmospheric Testing. Subpart J
- CFR 1910.146 App D Confined Space Pre-Entry Check List
- CFR 1910.146 App E Sewer System Entry.
- ANSI Z117.1-1989 American National Standard: Safety requirements for confined spaces.

### Goal:

The goal of this lesson is to make all employees aware of the potential hazards that may exist in a confined space and understand that special precautions, training, and an approved Confined Space Entry Permit or approved Routine Entry Procedures are required for entry.

### Objectives:

- List the potential hazards that may be found in a confined space.
- Identify the correct action for a non-qualified person to take if asked to enter an area they believe meets the OSHA definition of a Confined Space.
- Identify the requirements for entry to a Permit-Required Confined Space.



## Criticality Safety

### Requirement References:

- DOE-5480.20 Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities

### Goal:

Upon completion of this lesson, the participant will have the knowledge of criticality concepts and terms necessary to be able to properly respond to a criticality alarm and to identify the handling restrictions and labels associated with fissionable material.

### Objectives:

- Recognize fissionable material labels and the hazards associated with improper handling of those containers holding fissionable material.
- Identify the correct actions to minimize the risk of being exposed to an accidental criticality.
- Identify the correct actions to minimize radiation exposure in the event of an accidental criticality.

## Driver Safety

### Requirement References:

*There are no regulatory requirements for Driver Safety*

### Goal:

To enable drivers to recognize and identify hazardous driving conditions and to minimize their risk of accidents.

### Objectives:

- Recognize the hazards inherent with vehicle operation on and off the work site.
- Take the appropriate actions to reduce the risk of vehicle accidents on and off the work site.
- Know the appropriate actions to take in an emergency situation.



## Electrical Safety

### Requirement References:

- OSHA 29 CFR 1910.330-335: Electrical Safety-Related Work Practices Standards
- OSHA 29 CFR 1910.332: Training
- National Fire Protection Association Standards: NFPA 70, National Electric Code; and NFPA 70E, Electrical Safety Requirements of Employee Workplaces
- National Safety Council Data Sheets American National Standards Institute (ANSI) C-2 Underwriters Laboratories National Electrical Code (NEC)

### Goal:

To enable employees not qualified to be electricians to correctly apply the principles of hazard recognition and risk management to reduce workplace accidents involving electricity.

### Objectives:

- Identify the basic principles of electricity.
- Identify the primary hazards associated with electricity.
- Identify control measures and safety-related work practices to minimize the risk associated with electrical hazards.
- Identify the proper response procedures in the event of electric shock or fire.

## Emergency Response

### Requirement References:

- 29 CFR 1917 – Emergency action plans
- 29 CFR 1910.35 – Compliance with NFPA 101, Life Safety Code
- 29 CFR 1910.36 – Exit route design and construction
- 29 CFR 1910.37 – Maintenance and operational features for exit routes
- 29 CFR 1910.38 – Employee emergency action plans and fire prevention plans
- 29 CFR 1910.165 – Employee alarm systems
- 29 CFR 1918.100 – Emergency action plans
- 29 CFR 1926.159 – Employer alarm systems
- 29 CFR 1926.34 – Means of egress
- 29 CFR 1926.35 – Employee emergency action plans

### Goal:

Each employee will recognize their employer's responsibilities for communicating the emergency action plan, list their responsibilities in the action plan, identify requirements for alarm systems, recognize the elements of the fire prevention plan, and state responsibilities for responding to weather-related disasters, natural disasters, bomb threats, fire, workplace violence, and hazardous material incidents.

### Objectives:

- Identify required elements of a company emergency action plan and employee responsibilities regarding the plan.
- Identify when the employer must provide training on emergency action plans.
- Identify the requirements for alarm systems.
- Identify elements of a fire prevention plan including fire prevention measures.
- Identify the requirements for ways of access to emergency exit routes.
- Recognize employee responsibilities for responding to weather-related and natural disasters.
- Recognize employee responsibilities for responding to bomb threats, fire, workplace violence, and hazardous materials spills.



## Excavation, Trenching, and Shoring Safety

### Requirement References:

- 29 CFR 1926 Subpart P

### Goal:

Each employee will recognize key terms associated with excavation work, identify correct principles and practices used in designing excavations, recognize proper principles and practices associated with constructing an excavation, and identify the dangers and safe practices that must be followed when working in or near excavations.

### Objectives:

- Recognize the key terms associated with excavation work.
- Identify principles and practices used in designing excavations.
- Recognize the principles and practices associated with constructing an excavation.
- Identify the dangers and safe practices to follow when working in or near an excavation.

## Fall Protection

### Requirement References:

- OSHA Standards, Title 29 CFR, Part 1910 Subpart D, Walking and Working Surfaces, Section 1910.23, "Guarding floor and wall openings and holes"

### Goal:

To make all employees aware of the requirements for use of Fall Protection, Work Positioning, Fall Restraint, and Fall Arrest systems.

### Objectives:

- Identify the effects of free-fall and sudden arrest of free-fall on the body.
- Identify the requirements for Fall Protection Systems.
- Identify the requirements for equipment used in Work Positioning, Fall Restraint, and Fall Arrest systems.
- Identify the requirements for proper use of Work Positioning, Fall Protection, Fall Restraint, and Fall Arrest systems.

## Fire Safety

### Requirement References:

- 1910.157 Portable Fire Extinguishers
- 1910.38 Employee Emergency Plans and Fire Prevention Plans
- Fact Sheet No. OSHA 93-41 "WORKPLACE FIRE SAFETY"

### Goal:

To reduce the financial and personnel cost of fires.

### Objectives:

- Correctly identify fire prevention measures.
- Correctly identify the proper use of a portable fire extinguisher.
- Identify the correct response to a fire alarm.
- Correctly identify when and how to fight a fire.



## Flammable Liquid Safety

### Requirement References:

- 29 CFR 1910.106 Flammable and Combustible Liquids

### Goal:

The learner will correctly apply the principles of hazard recognition, safety, flashpoint protection, and inventory inspections in the use of flammable and combustible liquids in the workplace.

### Objectives:

- Identify the definitions and terms associated with flammable and combustible liquids used in the workplace.
- Recognize hazards inherent with work involving flammable and combustible liquids.
- Identify the safety requirements for the use of flammable and combustible liquids on the job.
- Recognize the storage requirements for flammable and combustible liquids at a work facility.
- Identify the principles of flashpoint protection when working with flammable and combustible liquids.
- Identify the steps for inspecting inventories of flammable and combustible liquids in the workplace.

## Formaldehyde Safety

### Requirement References:

- 29 CFR 1910.1048 (n) Formaldehyde

### Description:

Formaldehyde is one of the most common industrial chemicals in use today. It is also recognized as one of the most common toxic elements found in industry and it is a leading cause of workplace illness. This lesson provides an awareness of the specific hazards of formaldehyde in the work place and ways to reduce the risk for potential injuries and illnesses related to over-exposure of the chemical.

### Goal:

The learner will recognize the occupational hazards and health effects of exposure to formaldehyde and formaldehyde-based products, how this exposure occurs, and the controls necessary to ensure worker safety when exposed to these products in the workplace, including accidental spills or release.

### Objectives:

- Recognize the hazards of formaldehyde.
- Identify how workers can be exposed and the health effects of formaldehyde.
- Identify the exposure controls for protecting against formaldehyde hazards.
- Identify how to respond to a formaldehyde spill or release.



## Hand and Power Tools

### Requirement References:

- 29 CFR 1910 Subpart P, 1910.241 1910.242, 1910.243, 1910.244

### Goal:

Each employee using hand and power tools will recognize definitions and types of portable tools, the potential hazards connected with their use, including manual, electric, pneumatic, hydraulic, liquid-fueled, powder-actuated, and abrasive wheel tools, and will demonstrate the proper procedures required for each type of tool.

### Objectives:

- Identify general hazards associated with hand and power tool use, and the safety practices that will prevent these hazards.
- Identify appropriate safety practices for electrical equipment.
- Recognize safety requirements for operator controls and guards.
- Identify appropriate safety practices for hand (manually-powered) tools.
- Identify safety requirements for using portable abrasive wheel tools.
- Identify appropriate safety practices for hydraulic and pneumatic tools.
- Identify proper use of liquid-fueled and powder-actuated tools.
- Recognize when tools must be inspected, and what actions to take if damage is found.

## Hand Safety

### Requirement References:

- Occupational Safety and Health Standards - 29 CFR 1910.138 General Requirements for Personal Protective Equipment – Hand Protection
- Occupational Safety and Health Standards - 29 CFR 1910.212 General requirements for all machines. - Machinery and Machine Guarding
- American National Standard for Hand Protection - Selection Criteria: ANSI/ISEA 105-2000

### Goal:

To identify the major types and causes of hand injuries and how to prevent them through awareness of hazards, the use of hand protective equipment, and effective safe working practices.

### Objectives:

- Recognize that hands are tools that help make highly skilled and valued workers.
- Identify workplace hazards to the hands and how to minimize the risk of hand injuries.
- Identify the proper selection of gloves and effective safe working practices.



## Hazard Communication

*Also available in Spanish*

### Requirement References:

- 29 CFR 1910.119 Process safety management of highly hazardous chemicals
- 29 CFR 1910.1200 Hazard Communication

### Goal:

To inform workers of their right to know about chemical hazards in their work place and to meet OSHA requirements for providing employees information about the Hazard Communication Standard.

### Objectives:

- Identify the type of information provided on a chemical container label and an MSDS.
- Identify how they can detect the presence of hazardous chemicals in the work area.
- Identify what physical hazards can result from hazardous chemicals and how employees can protect themselves from those chemicals.
- Identify worker responsibilities for container labeling, using the MSDS, and training.

## Hearing Conservation

*Also available in Spanish and French*

### Requirement References:

- 29 CFR 1910.95 Occupational Noise Exposure

### Goal:

To enable the employee to correctly apply the principles of hazard recognition, risk management, and rights and responsibilities when working in areas where noise is a hazard

### Objectives:

- Recognize that a noise hazard exists in a particular area
- Take the appropriate actions to reduce the risk of hearing damage due to noise hazards
- Take the appropriate actions when confronted with a safety problem involving noise hazards



## Heat and Cold Stress

### Requirement References:

- OSHA Technical Manual, Section II, Chapter 4 - Heat Stress
- OSHA Facts Sheet: 95-16 Protecting Workers in Hot Environments Department of the Army, U.S. Army Research Institute of Environmental Medicine
- "Working in Hot Environments" National Institute for Occupational Safety and Health, 1992.

### Goal:

To reduce the financial and personnel cost of personal injuries on the job resulting in lost work days due to heat stress illness.

### Objectives:

- Identify and state the symptoms of cold stress.
- Identify and state the symptoms of heat stress.
- Identify and state first aid procedures for cold stress injury.
- Identify and state first aid for heat stress injury.
- Identify and state ways to help prevent heat stress.

## Hot Work with Arc Welding

### Requirement References:

- OSHA Regulations (Standards - 29 CFR), General requirements. - 1910.252
- OSHA Regulations (Standards – 29 CFR), Arc Welding and Cutting – 1910.254
- OSHA Safety and Health Regulations for Construction (Standards – 29 CFR), Welding and Cutting – 1926.351

### Goal:

The goal of this lesson is to provide required training in the hazards of hot work and the basic requirements for reducing the risk of injury.

### Objectives:

- Identify the hazards of hot work.
- Identify the basic requirements for performing hot work.
- Identify elements of equipment safety.
- Identify special equipment and precautions to ensure the personal safety of hot work employees.
- Identify appropriate safety practices for arc welding and cutting.



## Incident Investigation

### Requirement References:

- OSHA Small Business Training – Accident Investigation
- CFR 1910.119 (m) (1)

### Goal:

The learner will recognize the purpose of an incident investigation, the investigative procedures to follow, the kinds of information to be developed, how to conduct an interview following the incident, and how to create an incident investigation report.

### Objectives:

- Recognize the purpose of an incident investigation.
- Identify the procedures to follow and the kinds of information to be developed in an investigation.
- Identify who to interview and the correct method for conducting the interview.
- Identify the purpose and required components in an incident investigation report, including a recommendation of corrective action.

## Indoor Air Quality

### Requirement References:

- OSHA Standards, 29 CFR 1910.1000 and Table Z-1. Toxic and Hazardous Substances
- NIOSH Facts, June 1997 "Indoor Environmental Quality"
- OSHA Technical Manual, Section III: Chapter 2, "Indoor Air Quality Investigation"
- OSHA Unified Agenda, 2162. Indoor Air Quality in the Workplace
- OSHA Unified Agenda, 2249. Permissible Exposure Limits (PELS) for Air Contaminants
- EPA Document # 402-K-93-007, April 1995, The Inside Story - A Guide to Indoor Air Quality

### Audience:

General employees whose work tasks are mainly conducted indoors.

### Goal

The goal of this lesson is to provide awareness training to help employees recognize the occupational hazards and health effects of indoor air contaminants and controls to help maintain good indoor air quality.

### Objectives:

- Define the term "indoor air quality" and recognize the consequences of indoor air contamination.
- Recognize the causes and sources of the major indoor air contaminants.
- Identify the health effects and major risks of indoor air contamination.
- Identify controls to help maintain good indoor air quality.



## Industrial Ergonomics

### Requirement References:

- UNITED STATES DEPARTMENT OF LABOR: Occupational Safety and Health Administration, Fact Sheet No. OSHA 90-09
- National Institute for Occupational Safety and Health: "Guidelines for Protecting the Safety and Health of HealthCare Workers"
- DHHS (NIOSH) Publication No. 88-119
- National Safety Council, 1991: National Safety Council Supervisors' Safety Manual 7th Edition. Page 201

### Goal:

To minimize the possibility of employee accidents and illness due to chronic work-related physical and psychological stresses and maximize productivity and efficiency.

### Objectives:

- Recognize that changes in daily habits can help prevent back pain and muscle injury and identify the cycle of pain.
- Identify the principles and goals of ergonomics and how their application can be used to solve work-stress problems.
- Identify various ergonomic problems and the signs and symptoms of work-related musculoskeletal disorders (MSD's).
- Identify ways the workspace can be arranged to reduce ergonomic problems related to lifting, use of hand tools, whole-body vibration, and computer workstations.

## Laboratory Safety

### Requirement References:

- OSHA Standards, Title 29 CFR, Part 1910 "General Industry", Section 1910.1450 "Occupational Exposures to Hazardous Chemicals in Laboratories", generally referred to as the "Laboratory Standard".
- OSHA Standards, Title 29CFR, Part 1910, Section 1019.1200, Hazard Communication
- OSHA Standards, Title 29CFR, Part 1910, Section 1019.330-335, Electrical Safety
- OSHA Standards, Title 29CFR, Part 1910, Section 1910.132, Personal Protective Equipment - General Requirements
- OSHA Standards, Title 29CFR, Part 1910, Section 1910.157, Portable Fire Extinguishers
- OSHA Standards, Title 29 CFR, Part 1910, Section 1910.1030, Bloodborne Pathogens

### Goal:

The goal of this lesson is to provide required awareness training in the occupational hazards common to most laboratory operations, safe work practices to help reduce or eliminate exposure to these hazards, special equipment and precautions to ensure personal safety, and the correct response to emergency situations in laboratories.

### Objectives:

- Identify the hazards common to most laboratory operations.
- Identify safe work practices to reduce or eliminate exposure to hazards in the laboratory workplace.
- Identify personal protective equipment designed to protect laboratory workers.
- Identify special equipment and precautions to ensure the personal safety of laboratory workers.
- Identify the correct response to emergency situations in laboratories.



## Ladder Safety

### Requirement References:

- 29 CFR 1910.25 Portable Wood Ladders
- 29 CFR 1910.26 Portable Metal Ladders
- 29 CFR 1910.27 Fixed Ladders
- 29 CFR 1910.333 Selection and Use of Work Practices
- 29 CFR 1917.118 Fixed Ladders
- 29 CFR 1917.119 Portable Ladders
- 29 CFR 1918.24 Fixed and Portable Ladders
- 29 CFR 1926.1053 Ladders

### Goal:

The learner will identify common terms associated with work on ladders, recognize the hazards inherent with ladder work, and incorporate general safe practices to reduce or eliminate these hazards. The learner will also recognize the fall protection requirements associated with ladder work, and when, as well as how, to inspect ladders.

### Objectives:

- Identify the definitions and terms associated with ladder work.
- Recognize common hazards associated with using ladders in the workplace.
- Identify the general requirements for using ladders safely on the job.
- Identify fall prevention requirements for working with ladders.
- Recognize how to inspect ladders before and after use.

## Lead Awareness

### Requirement References:

- OSHA Standards, 29 CFR 1910.1025, App B Lead
- SubPart Number: X. Employee Information and Training - Paragraph L
- SubPart Number: Z. Toxic and Hazardous Substances

### Goal:

To provide awareness training to help workers recognize the occupational hazards and health effects of lead exposure, where lead is found, and the exposure controls.

### Objectives:

- Recognize the hazards of lead in the workplace.
- Identify the health effects of lead exposure.
- Identify where lead is found.
- Identify exposure controls to avoid lead hazards.



## Lock and Tag

*Also available in Spanish and French*

### Requirement References:

- 29 CFR 1910.331 Safety-Related Work Practices
- 1910.332 Training
- 29 CFR 1910.147 The control of hazardous energy (lockout/tagout)
- APPENDIX A TO §1910.147A - Typical Minimal Lockout Procedure

### Goal:

For general worker understanding of, and compliance with, the lockout/tagout system of their workplace location/facility.

### Objectives:

- Correctly identify the purpose of a lockout/tagout system
- Correctly identify typical locks and tags and their use
- Correctly identify the limitations of tags

## Machine Guarding

### Requirement References:

- OSHA 29 CFR 1910.212 General Requirements for all Machines
- OSHA Manual 3067 – Revised 1992 – Concepts and Techniques of Machine Safeguarding
- OSHA 29 CFR 1910.217 – Mechanical Power Presses
- OSHA 29 CFR 1910.215 – Abrasive Wheel Machinery
- OSHA 29 CFR 1910.213 – Woodworking Machinery

### Goal:

The student will recognize the hazards associated with machine use and know the methods for machine safeguarding.

### Objectives:

- Define mechanical hazards associated with machinery use.
- Identify the requirements for what a safeguard must do to protect workers from mechanical hazards.
- Identify methods for machine guarding and specific types of machine safeguards.
- Identify the rights and responsibilities of an employee when working around guarded machinery, including PPE use and training requirements.



## Office Ergonomics

### Requirement References:

- UNITED STATES DEPARTMENT OF LABOR: Occupational Safety and Health Administration, Fact Sheet No. OSHA 90-09
- National Institute for Occupational Safety and Health: "Guidelines for Protecting the Safety and Health of HealthCare Workers"
- DHHS (NIOSH) Publication No. 88-119
- National Safety Council, 1991: National Safety Council Supervisors' Safety Manual 7th Edition. Page 201

### Goal:

To minimize the possibility of employee accidents and illness due to chronic work-related physical and psychological stresses and maximize productivity and efficiency.

### Objectives:

- Recognize that changes in daily habits can help prevent back pain and muscle injury and identify the cycle of pain.
- Identify the principles and goals of ergonomics and how their application can be used to solve work-stress problems.
- Identify various ergonomic problems and the signs and symptoms of work-related musculoskeletal disorders (MSDs).
- Identify ways the workspace can be arranged to reduce ergonomic problems related to lifting and computer workstations.

## Overhead and Gantry Crane Safety

### Requirement References:

- OSHA Regulations (Standards - 29 CFR). Overhead and Cranes - 1910.179
- AMSE/ANSI B30 Series

### Goal:

All employees operating cranes will identify the requirements for inspection, operational testing, proper rigging, lifting procedures, and other safety practices relevant to crane operation.

### Objectives:

- Identify the required steps for inspecting crane equipment.
- Identify the requirements for pre-operation testing for overhead and gantry cranes.
- Identify the requirements for proper load rigging for overhead and gantry cranes.
- Identify the required procedures for lifting and moving loads with overhead and gantry cranes.
- Identify required safety practices for leaving equipment unattended, working around other personnel, and disconnecting power to the equipment.



## Personal Protective Equipment

*Also available in Spanish and French*

### Requirement References:

- 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response.
- Appendix C to 1910.120 COMPLIANCE GUIDELINES
- 29 CFR 1910.134 Respiratory protection.

### Goal:

To protect employees from work-related illness and injury.

### Objectives:

- Demonstrating how to determine what personal protective equipment is required to perform a particular job.
- Identifying the need to inspect personal protective equipment for defects before donning and replace as needed.
- Demonstrating an understanding of the need to wear personal protective equipment as it was designed to be worn.

## Process Safety Management

### Requirement References:

- OSHA Process Safety Management Standard: 29 CFR 1910.119

### Goal:

The goal of this lesson is to provide awareness training on "highly hazardous" chemical processes and the importance of having and following certain procedures to prevent or minimize the release of these chemicals.

### Objectives:

- Identify hazards involving highly hazardous chemicals.
- Define a chemical process.
- Identify the importance of following procedures to prevent release of highly hazardous chemicals.

## Radio Communications

### Requirement References:

- Title 47 CFR 1, 19, 20

### Goal:

Learners will identify why radio operator training is required, recognize operator responsibilities, demonstrate correct procedures for calling and acknowledging messages, recognize code words, and identify general radio communication requirements.

### Objectives:

- Identify why radio operator training is required and recognize key operator responsibilities.
- Identify how to prioritize messages and recognize approved and prohibited message content.
- Identify proper procedures for calling and acknowledging radio messages.
- Identify radio code words.
- Identify general radio communication requirements.

## Safety Audits

### Requirement References:

- Federal Register - Table of Contents
- Information Date: 07/28/2000
- Federal Register #: 65:46498-46503
- Type: Notice
- Agency: OSHA
- Subject: Final Policy Concerning the Occupational Safety and Health Administration's Treatment of Voluntary Employer Safety and Health Self-Audits.
- CFR Title: 29

### Audience:

This training is for managers, supervisors, and general employees who may be involved in conducting a safety audit.

### Goal:

The goal of this lesson is to provide awareness training for managers, supervisors, and general employees on the importance of safety audits and how to plan and conduct an audit.

### Objectives:

- Recognize the importance of safety audits and the objectives of a safety audit program.
- Identify how to plan and conduct a safety audit.
- Identify how to inspect the work area and work practices.
- Identify how to formulate recommendations for corrective action recommendations, make audit reports, and conduct follow-ups.



## Scaffold Safety

### Requirement References:

- 29 CFR 1926.450, 1926.451, 1926.452

### Goal:

Each employee working around scaffolds will recognize definitions and types of scaffolds, the potential hazards connected with their use, including electrical, structural instability, falls, and falling objects, and will demonstrate proper use of procedures required for working on or near scaffolds.

### Objectives:

- Define common types of scaffolds and terms associated with their use.
- Identify hazards associated with scaffolds.
- Recognize who may build and design scaffolds.
- Recognize required safe practices for working on or near scaffolds.
- Identify fall protection requirements specific to work on scaffolds.
- Identify requirements for operating and working in aerial lifts.

## Slips, Trips, and Falls

### Requirement References:

- 29 CFR 1910, SubPart D, Walking-Working Surfaces
- 29 CFR 1910.22 General Requirements
- 29 CFR 1910.25, Portable Wood Ladders
- 29 CFR 1910.26, Portable Metal Ladders
- 29 CFR 1910.28, Safety Requirements for Scaffolding
- 29 CFR 1910.29 Manually propelled mobile ladder stands and scaffolds (towers).
- 29 CFR 1917.118 Fixed Ladders
- 29 CFR 1917.119 Portable Ladders
- 29 CFR 1918.25 Ladders

### Description:

The goal of this introductory course is to teach employees to identify safe and correct methods for using portable ladders and scaffolds. The student learns to identify good housekeeping practices to prevent accidents, as well as safe procedures for working on elevated surfaces.

### Goal:

Employees will identify safe and correct methods for using portable ladders and scaffolds.

### Objectives:

- Identify the correct safety procedure for good housekeeping practices.
- Identify the correct safety procedure for ladders.
- Identify the correct safety procedure for elevated work surfaces.
- Identify safe procedures for floors, stairs, and halls.
- Identify safe procedures for fall protection.



## Traffic Control (Flagger)

### Requirement References:

- OSHA Standard 29 CFR 1926.201
- OSHA Standard 29 CFR 1926.203

### Goal:

The student will recognize general guidelines for traffic control, the signs, barriers, flags, stop/slow paddle and lights used at the work site, clothing regulations, and how to properly position himself/herself for optimum safety. The student will also identify how to judge traffic speed and congestion and regulate traffic accordingly.

### Objectives:

- Identify the importance of proper work methods, physical fitness, professionalism, and clothing regulations.
- Identify the barriers, signs, flags, stop slow paddle, and lights employees use at the work site.
- Recognize where to position himself/herself for optimum safety, how to judge traffic speed and congestion, and regulate it accordingly.
- State common methods to communicate with other flaggers and the public.
- List the procedures for placing construction warning signs, channeling devices, and tapers.
- Identify the special equipment and precautions associated with night and freeway flagging.