



Frank Phillips College Safety Training Center

SafeLandUSA Outline

Lesson 1- Introduction

- Importance of Training
 - Workplace injuries are costly
 - Benefits of safe behavior/Attitude is contagious
- Introduction topics covered in Course
- Four Keys of Safety
 - Leadership
 - Knowledge
 - How to Recognize Hazards
 - Controlling Hazards
- Responsibilities of Owner, Employer, Employee
 - Employee safe work practices are a condition of employment
 - Workplace Injuries are preventable
 - Lead through example
 - Safety is important both on and off the job
 - Each individual's safety performance has a direct bearing on his/her employer's ability to work in the industry
- OSHA Reporting

Lesson 2- General Rules and Emergency Response

- Plant Entry and Security
- Prohibited Items:
 - Guns, Firearms, Ammunition
 - Weapons, Clubs
 - Cell Phones
 - Cameras
 - Lighters, Matches, Explosives
 - Stolen Property
- Instructor Discussion – State gun laws
- Controlled Substance Policy to include Medications
 - Illegal Drugs
 - Alcohol
- Smoking Restrictions and Rules
- Job Site Maintenance
- Prohibited Actions
 - No Horseplay
- Cleaning Chemical Spills
- Vehicle and Equipment Rules/Cranes/Forklifts
- Instructor Discussion – Definition of “Qualified” workers and who determines if a worker is “Qualified”
- Work Permits:
 - Safe Work
 - Confined Space
 - Hot Work
 - Line Breaking
 - Lockout/Tagout
- Instructor Discussion – What must a worker do before starting a permit required job?
- Confined Space
- Signs, signals, Tags, barriers, & Barricades
- Back Safety/Ergonomics

- Instructor Discussion – Who does the worker report pain or discomfort to?
- Instructor Discussion – Types of Bloodborne Pathogens and Exposures
- Bloodborne Pathogens:
 - Discussion of types
 - Universal Precautions
 - Training requirements to clean up BBP

Lesson3- HAZCOM (29CFR1910.1200)

- Right-To-Know Standard Requirements
- Basics of HAZCOM Standard
- Elements of HAZCOM program
- Labeling Requirements for Containers
- Definition of “Container”
- Labels- NFPA & HMIS
- Instructor Discussion – NFPA Label
- Discussion of Globally Harmonized Labeling System (GHS)
- MSDS requirements
- Training Requirements for HAZCOM
- Description of Physical and Health Hazards
- Instructor Discussion – Examples of Physical Hazards
- Discussion on Lead
- Instructor Discussion – Areas of the body effected by Lead
- Discussion on Asbestos
- Discussion on Radiation
- INTERACTION – Discussion on the Segments of the MSDS.

Lesson 4- Personal Protective Equipment (29CFR1910.132-138)

- Discussion of the basics of the PPE standards
- Hazard Assessment Guidelines
- Controlling Hazards using Engineering Controls and Administrative Controls
- Instructor Discussion – Methods of Controlling Hazards
- PPE Training requirements
- Eye and Face Protection
- Head Protection
 - Class C, G, and E hard hats
- Foot Protection
- Hand Hazards/Injuries
- Instructor Discussion – Types and Examples of Hand Hazards
- Hand Protection
- Instructor Discussion – Explain how gloves can get caught in rotating or automated machinery.
- Cleaning and Maintenance
- Flame Resistant Clothing (FRC)
- INTERACTION – Illustration on the types of PPE necessary for three different work locations – entering a gate, working in an operating unit, and working in a confined space.

Lesson 5- Respiratory Protection (29CFR1910.134)

- OSHA Requirements for Respiratory
- Controlling airborne hazards
- Respiratory Hazards
- Instructor Discussion – Physiological Effects of Oxygen Deprivation, and when to wear respirators
- Instructor Discussion – Types of Respiratory Hazards

- Types of Respirators
- Instructor Discussion – Define IDLH-Immediately Dangerous to Life and Health
- Air Purifying Respirators
- Types of Respirator Cartridges
 - Particulate Filters
 - Gas and Vapor Cartridges
 - Combination Filters
 - Color-coding for Cartridges
- Air-Supplying Respirators
- Fitting a Respirator
- Instructor Discussion – Requirements for Wearing a Respirator
- Maintenance and Care of Respirators
- Training Requirements for Respiratory Protection
- INTERACTION – Picking out the Air-Supplied Respirator in a group of four Respirators.

Lesson 6- Hearing Conservation (29CFR1910.95)

- OSHA Requirements
- Areas of Focus:
 - How noise affects your hearing
 - The purpose of hearing protectors
 - The types of hearing protectors and their related advantages and disadvantages
 - How to select, fit, use and care for your hearing protection
 - Audiometric testing
- Instructor Discussion – Explanation that Audiograms are simple hearing tests to determine hearing ability
- Noise levels in everyday activities
- Instructor Discussion – Types of noises in the work areas
- Noise levels that cause hearing loss
- Instructor Discussion – Repeated exposure to 85 dBA could cause hearing loss
- Symptoms and Effects of Overexposure to Noise
- Engineering and Administrative Controls to Noise Exposure
- Standard Threshold Shift
- Instructor Discussion – Define Standard Threshold Shift (STS)
- Types of Hearing Protection
- Instructor Discussion – Proper Insertion of the Ear Plug
- Hearing Protection requirements
- Training requirements
- INTERACTIVE – Instructor will demonstrate how to properly Donn or insert Ear Plugs.

Lesson 7- Electrical Safety Work Practices (29CFR1910.331-335)

- OSHA Requirements
- Definitions Qualified and Unqualified Workers
- Unsafe Work Practices
- De-energized v/s Energized Equipment
- Training requirements for Qualified and Un-qualified workers
- Definition of Lockout and Tagout
- Energy sources that can be controlled using LOTO procedures
- LO/TO Procedures
- Instructor Discussion – Placement of a Tag Properly
- LO/TO guidelines
- Energized Circuits/Overhead Lines
- Instructor Discussion – Minimum Distance around Overhead Lines.
- Equipment Interlocks

- Grounding and GFCI's
- Instructor Discussion – GFCI's and Competent Person definition
- Portable Electrical Equipment
- INTERACTION – Various types of energy on a dump truck

Lesson 8- Elevated Work (29CFR1926.451 & 501)

- Definitions of Floor Hole, Floor Opening, and Wall Opening
- Safe work practices to avoid fall hazards
- Instructor Discussion – Examples of Safe work practices to avoid falls
- Fall Prevention requirements for covers, stairs, and open-sided platforms
- Ladder Safety/Types of Ladders
- Duty Ratings
- Ladder Site Selection
- Securing Ladder
- 4 to 1 Rule
- 3 Points of Contact
- Instructor Discussion – explain the “3 Points of Contact”
- Ladder Inspection Requirements
- Instructor Discussion – Safe Work Practices when using a ladder
- Introduction into Scaffolds
- Instructor Discussion – Explanation that most workers will use a scaffold of some kind at some point.
- Types of Scaffolds
- Define:
 - Scaffold User
 - Competent Person
 - Qualified Person
- Instructor Discussion – Scaffold must be designed by a qualified person, and erected by a trained crew under the supervision of a competent person.
- Scaffold Safety Requirements and Duty Rating
- Instructor Discussion – Safe Work Practices for working around scaffolds
- Scaffold Access Requirements
- Fall Protection/Prevention Training Requirements
- Potential areas of Fall Hazards
- Instructor Discussion – Types of Fall Hazards
- Employee requirements for using fall protection
- Instructor Discussion – Fall protection requirements for scaffolds
- Personal and Environmental Factors for a potential fall
- Instructor Discussion – examples of personal and environmental factors for falls
- Fall Arrest Equipment/Fall Prevention Systems
- Instructor Discussion – Marker use on Fall Protection devices
- Free-fall and Deceleration distances
- Requirements for anchorage points
- Vertical and Horizontal Lifelines
- Suspension Trauma or Orthostatic Intolerance
- Instructor Discussion – Fall rescue requirements
- Positioning devices
- Fall protection device inspection requirements
- INTERACTIVE – Requirements for guardrails for scaffolds, Planking on scaffolds, and the various tags used on scaffolds.

Lesson 9- Excavation, Trenching and Shoring

- OSHA Requirements
- Definitions of Excavations, Trenches, Shoring, and Shielding
- Definition of Competent Person
- Potential Hazards
- Instructor Discussion – Hazards of Excavations
- Protective Systems
- Means of Egress
- Hazardous Atmospheres in Excavations
- Excavation Safety
- Instructor Discussion – Information required for reporting and emergency
- INTERACTIVE – placement of ladders every 25 ft of travel.

Lesson 10- Process Safety Management (29CFR1910.119)

- Introduction
- 14 Sections of PSM
- Process Hazard Analysis
- Pre-Startup Safety
- Employee Training
- Instructor Discussion – Training requirements for employees
- Contractors
- Mechanical Integrity
- Non-Routine/Hot Work Authorization
- Managing Change
- Compliance Audits
- Instructor Discussion – What is a Compliance Audit?
- INTERACTION – What are the contractor's responsibilities?

Lesson 11- Job Hazard Analysis

- Description of JHA
- Four main elements of a JSA/JHA
 - The worker
 - The task
 - The tools
 - The work environment
- Benefits of JHA/JSA
- Instructor Discussion – Achieving a “Zero Accidents” work site
- Job Selection
- Break Job Into Steps
- Hazard Elimination or Reduction using Engineering controls or Administrative controls
- Various names for JSA/JHA's
- INTERACTION – Detailed Discussion of a JSA and the sections of a JSA.

Lesson 12 - Emergency Action Plan

- EAP requirements for various worksites
- Emergency Actions
- Emergency Evacuations
- Instructor Discussion – What actions to take during an emergency.
- Warning systems and alarms
- Accident Reporting
- INTERACTION – Emergency Evacuation actions

Lesson 13 – Fire Prevention

- Definition of Fire
- Elements needed for a fire to occur
- Instructor Discussion – Elements needed for a fire
- Classes of Fire and Fire Prevention methods for each
- Using a portable Fire extinguisher
- Stop, Drop, and Roll for clothing fire
- Instructor Discussion – How do we prevent fires?
- INTERACTION – Classes of fires quiz

Lesson 14 – General Safety

- Incident Reporting and Investigation
- Accident Prevention Signs and Tags
- Hand Safety
- Behavioral Safety
- Drug and Alcohol Abuse
 - Government Regulations/Company Requirements
 - Defined/where posted
 - Contractor
 - E&P Operator (if different)
 - Supervisor responsibilities, training, reasonable suspicion
 - Employee Awareness: Effects and Consequences
 - Searches and seizures
 - Testing
 - Reporting of prescription medications
 - Prohibit drug paraphernalia
- Intervention and Stop Work Authority
- Simultaneous operations/communications
- Worksite Hazards - Types
 - Electric (shock)
 - Mechanical (caught between/struck by)
 - Gravity (dropped objects)
 - Pressure (air, drilling mud, gas)
- Prevention of Workplace Violence
 - Recognition of
 - Responsibility to Report
- No horseplay or practical jokes
- Observe smoking restrictions
- Housekeeping
 - Importance
 - Proper housekeeping practices
 - Proper storage
 - Walkways and aisles
 - Spills and trip hazards
 - On the job
 - Signs, cones, barriers and barricades
- Practice respect for co-workers
 - No ethnic, racial, religious or sexual harassment or jokes
 - No profanity

- No excessive noise
- Proper dress on and off duty / Attend to personal hygiene
- Overview of Fire Safety
- Other Personal Protective Equipment
- Safe Driving Practices
 - Valid driving licenses, certifications, endorsements
 - Journey management (trip planning)
 - Load securement, offloading
 - Vehicle condition/Inspection
 - Driving practices
 - Motor vehicle laws
 - Defensive driving
 - Vehicle safety restraints (seat belts, airbags)
 - Road hazards/adverse weather – (road conditions – wildlife)
 - Parking (back in, location hazards)
 - No cell phone use while driving/Driving distractions
 - Driving under the influence
 - Fatigue
- Excavation Safety
 - Regulatory Requirements
 - Role of Site Worker, Competent Person
 - Work Practices
 - Hazards Relating to Excavation/Trenching Work
 - Identification of underground hazards
 - Call before digging (ONE CALL (811))
 - Methods of Protection from Excavation Hazards
 - Use of Personal Protective Equipment
 - Procedures Regarding Hazardous Atmospheres
 - Emergency and Non-entry Rescue Procedures
- PITS AND PONDS
 - Types
 - Purposes
 - Safety Precautions When Working Around
- Short Service Employee Process
- Emergency Response Plans
- Wildlife
- Adverse Weather Conditions
- Communication

Lesson 15 – Materials Handling

- Materials Handling Equipment
- Forklift Safety
- Cranes, Rigging, & Tag Lines
- Working With Hand Tools
- Cheater Bar / Pipe

Lesson 16 – First Aid

- First Aid
- Bloodborne Pathogens
- Universal Precautions

Lesson 17 – Confined Space

- Examples of confined space / Hazards
- Roles and responsibilities
- Procedures / Training

Lesson 18 – Electrical

- Electrical Safety
- Work near Energized Components
- Overhead Line Safety
- Electrical Hazards

Lesson 19 – Walking-Working Surfaces

- Guarding Openings and Holes
- Floor Openings
- Wall Openings
- Stairways and Handrails

Lesson 20 – Environmental

- Regulations, Compliance and Reporting
- Roles and Responsibilities
- Hazardous Waste
- Spill Response (HAZWOPER) and Reporting
- Transportation of HAZMAT (Hazardous Materials)

Lesson 21 – Industrial Hygiene and Occupational Health

- Purpose
- Types of Health Hazards
- Mechanism of Exposure
- Roles and Responsibilities
- Monitoring and Mitigation
- Common Hazards
 - NORM
 - H₂S
 - Benzene
 - Toluene
 - Carbon Dioxide and Nitrogen
 - Lead
 - Mercury
 - Diethanolamine
 - Hexavalent Chromium
 - Methanol
 - Inhalant Hazards
 - Temperature Extremes
 - Biological Agents