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30 Hour Construction Industry Outreach Study Guide



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Course Description

The OSHA 30 Hour Construction Industry Outreach Training course is a comprehensive safety program designed for anyone involved in the construction industry. Specifically devised for safety directors, foremen, and field supervisors; the program provides information on OSHA compliance issues. OSHA recommends Outreach Training Programs as an orientation to occupational safety and health for workers, covered by OSHA 29 CFR 1926. Construction workers must receive additional training, when required by OSHA standards, on specific hazards of the job.

Learning Objectives

At the conclusion of this course, the student will be able to:

- Explain the importance of OSHA in providing a safe and healthful workplace to workers
- Locate OSHA Standards references applicable to specific hazardous conditions and practices (Introduction to OSHA Standards)
- Recognize the aspects of 1926 Subpart C (General Safety and Health Provisions)
- Implement preventative measures for accidents in their workplace (Subpart D - Occupational health and Environmental Controls)
- Describe types of personal protective equipment (PPE), and the requirements for its use in OSHA standards (Subpart E - Personal Protective Equipment)
- Understand the requirements for fire protection in the workplace (Subpart F - Fire Protection and Prevention)
- Identify the various types of rigging equipment used to protect employees (Subpart H - Rigging; Subpart N - Cranes and Rigging)
- Identify the critical health and safety hazards of welding and cutting in the construction industry (Subpart J - Welding and Cutting)
- Identify common electrical hazards and related OSHA standards (Subpart K - Electrical Standards)
- Understand the importance of scaffolding for workers in elevated workplaces (Subpart L - Scaffolding)
- Implement measures for protecting workers and equipment from dangerous falls (Subpart M - Fall Protection)
- Recognize the hazards associated with working in or around excavation sites (Subpart P - Excavations)
- Understand the safety requirements necessary to protect workers around concrete and masonry jobs (Subpart Q - Concrete and Masonry)

- Protect workers who perform jobs on or around stairways or ladders at worksites (Subpart X - Stairways and Ladders)
- List and describe the hazards and prevention required for confined spaces

Key Terms

Acceptable Entry Conditions: Conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit-required, confined space entry can safely enter into, and work within, the space.

Accident: Harmful event that is unexpected or without apparent cause.

Acetylene: Acetylene forms explosive mixtures with oxygen or air. When dissolved in acetone, it is non-explosive and so is stored as such; however, the acetone is under pressure in steel cylinders for commercial use.

Act: As a statute, decree, or enactment resulting from a decision by a legislative body.

Action Level: The level of lead particulates present in the air that signifies close monitoring is required so that the PEL is not approached. The action level for lead is 30 micrograms per cubic meter (ug/m3) for eight hours.

Administer: Manage or have jurisdiction over, as in federal jurisdiction in Federal Plan States, or state jurisdiction in State Plan States.

Amperes or Amps: The volume of the current flow.

Anchorage: A secure point of attachment for lifelines, lanyards, or deceleration devices.

ANSI: American National Standards Institute

Approved: For the purpose of this course, the word "approved" means equipment that has been listed or approved by a nationally recognized testing laboratory or by federal agencies.

Article: A manufactured item other than a fluid or particle:

- Which is formed to a specific shape or design during manufacture,

- Which has end use function(s) dependent in whole or in part upon its shape or design during end use, and
- Which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical and does not pose a physical hazard or health risk to employees.

Asbestosis: An incurable restrictive lung disease often linked to occupational exposure.

Atmospheric Tank: A storage tank which has been designed to operate at pressures from atmospheric through 0.5 psig (pounds per square inch gauge).

Attendant: An individual, stationed outside one or more permit spaces, who monitors the authorized entrants and performs all attendant's duties assigned in the employer's permit space program.

Audible Backup Alarms: These devices must be installed on heavy construction vehicles and maintained in proper working order. They sound an alarm to nearby workers that a dangerous vehicle is backing up.

Authorized Entrant: An employee who is authorized by the employer to enter a permit space.

Authorized Person: A person assigned by the employer to perform a duty or to be at a particular job site.

AWG: American wire gauge (AWG), which is one measurement standard used to size wire.

Barricade: An obstruction to deter the passage of persons or vehicles.

Bearer (Putlog): A horizontal transverse scaffold member (which may be supported by ledgers or runners) upon which the scaffold platform rests and which joins scaffold uprights, posts, poles, and similar members.

Beryllium: A steel-gray, light, strong, brittle, toxic, bivalent metallic element used chiefly as a hardening agent in alloys.

Blast Area: The area where explosives are loaded and blasting operations are carried out.

Blasting Agent: Any material or mixture that consists of a fuel and oxidizer used for blasting, but is not considered an explosive. The ingredients in the blasting agent are also not classified as explosives.

Blasting Cap: A metallic tube that is closed at one end and contains a charge of detonating compounds that can be detonated from the flame of a safety fuse placed into the open end of the tube.

Block: Sheaves or grooved pulleys in a frame with a hook, eye, and strap.

Bloodborne Pathogens: Infectious microorganisms found in human blood can cause diseases such as Hepatitis B and C and the Human Immunodeficiency Virus (HIV).

BLS: Bureau of Labor Statistics

Boatswains' Chair: A single-point adjustable suspension scaffold consisting of a seat or sling designed to support one employee in a sitting position.

Body Belt: A strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

Body Harness: A design of straps which may be secured about the employee in a manner to distribute the fall arrest forces over at least the thighs, pelvis, waist, chest, and shoulders, with means for attaching the harness to other components of a personal fall arrest system.

Boom: An inclined spar, strut, or other long member supporting the hoisting tackle.

Boom Angle Indicator: An accessory device that measures the angle of the boom base section centerline to horizontal load and the weight of the object being lifted which includes load blocks and hooks, wire ropes, rigging, boom attachments, and ancillary attachments.

Boom Stops: A device used to limit the angle of the boom at its highest position.

Brace: A rigid connection that holds one scaffold member in a fixed position with respect to another member or to a building or structure.

Brake: To slow or stop motion by friction or power.

Cadmium: A bluish-white malleable ductile toxic bivalent metallic element used especially in protective plating and in bearing metals.

Catastrophic Release: A major uncontrolled emission, fire, or explosion, involving one or more highly hazardous chemicals, that presents serious danger to employees in the workplace.

Chemical: Any element, compound, or mixture of elements and/or compounds.
Chimney Hoist: A multi-point adjustable suspension scaffold used to provide access to work inside chimneys.

Chock: A wedge or block used to keep a vehicle parked on an incline from rolling.

Chromium: A blue-white metallic element found naturally only in combination and used especially in alloys and electroplating.

Circuit: Completion of the path of the current; including a voltage source, conductors, and the load (such as a lamp, tool, or heater).

Closed Container: A container so sealed by means of a lid or other device that neither liquid nor vapor will escape from it at ordinary temperatures.

Combustible: A material having a flashpoint of 100 degrees Fahrenheit, or above.

Combustible Liquids: Any liquid having a flash point between 140°F and 200°F.

Combustion: Burning of a material, i.e., a chemical change accompanied by the production of heat and light.

Competent Person: A person who has authorization to take corrective action and is able to recognize existing and predictable hazards.

Concrete: A mixture of cement, sand, aggregate, and water in specific proportions that hardens to a strong stony consistency over varying lengths of time.

Conductors: Materials that contain free electrons that allow current to flow through the material.