

Shipyard employment Glossary

Adjacent Spaces means those spaces bordering a subject space in all directions, including all points of contact, corners, diagonals, decks, tank tops, and bulkheads.

Alarm means a signal or message from a person or device that indicates that there is a fire, medical emergency, or other situation that requires emergency response or evacuation. At some shipyards, this may be called an "incident" or a "call for service."

Alarm System means a system that warns employees at the worksite of danger.

Barge means an unpowered, flat bottom, shallow draft vessel including scows, car floats and lighters. For purposes of this section, the term does not include ship shaped or deep draft barges.

Bearer is a horizontal member of a scaffold upon which the platform rest and which may be supported by ledgers.

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

Certified Industrial Hygienist (CIH) means an industrial hygienist who is certified by the American Board of Industrial Hygiene.

Class II standpipe system means a 1 1/2 inch (3.8 cm) hose system which provides a means for the control or extinguishment of incipient stage fires.

Coast Guard Authorized Person means an individual who meets the requirement of Appendix B to Subpart B of this part 1915 for tank vessels, for passenger vessels, and for cargo and miscellaneous vessels.

Cold Work means any work that does not involve riveting, welding, burning, or other fire or spark producing operations.

Competent Person for purposes of this part means a person who is capable of recognizing and evaluating employee exposure to hazardous substances or to other unsafe conditions and is capable of specifying the necessary protection and precautions to be taken to ensure the safety of employees as required by the particular regulation under the condition to which it applies. For the purposes of Subparts B, C, and D of this part, except for 1915.35(b)(8) and 1915.36(a)(5), to which the above definition applies, the competent person must also meet the additional requirements of 1915.7.

Confined Space means a compartment of small size and limited access such as a double bottom tank, cofferdam, or other space which by its small size and confined nature can readily create or aggravate a hazardous exposure.

Contract Employer means an employer, such as a painter, joiner, carpenter, or scaffolding sub-contractor, who performs work under contract to the host employer or to another employer under contract to the host employer at the host employer's worksite. This excludes employers who provide incidental services that do not influence shipyard employment (such as mail delivery or office supply services).

Dangerous Atmosphere means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (i.e., escape unaided from a confined or enclosed space), injury, or acute illness.

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Designated Area means an area established for hot work after an inspection that is free of fire hazards.

Dilution Ventilation means a form of exposure control that involves providing enough air in the workplace to dilute the concentration of airborne contaminants to acceptable levels.

Drop Test means a method utilizing gauges to ensure the integrity of an oxygen fuel gas burning system. The method requires that the burning torch is installed to one end of the oxygen and fuel gas lines and then the gauges are attached to the other end of the hoses. The manifold or cylinder supply valve is opened and the system is pressurized. The manifold or cylinder supply valve is then closed and the gauges are watched for at least sixty (60) seconds. Any drop in pressure indicates a leak.

Emergency Operations means activities performed by fire response organizations that are related to: rescue, fire suppression, emergency medical care, and special operations or activities that include responding to the scene of an incident and all activities performed at that scene.

Employee means any person engaged in ship repairing, shipbuilding, ship breaking, or related employments on the navigable waters of the United States, including dry docks, graving docks, and marine railways, other than the master, ship's officers, crew of the vessel, or any person engaged by the master to repair any vessel over 18 net tons.

Employer means an employer, any of whose employees are employed, in whole or in part, in ship repairing, shipbuilding, ship breaking or related employments as defined in this section on the navigable waters of the United States, including dry docks, graving docks, and marine railways.

Enclosed Space means any space, other than a confined space, which is enclosed by bulkheads and overhead. It includes cargo holds, tanks, quarters, and machinery and boiler spaces.

Enter with Restrictions denotes a space where entry for work is permitted only if engineering controls, personal protective equipment, clothing, and time limitations are as specified by the Marine Chemist, Certified Industrial Hygienist, or the shipyard competent person.

Entry means the action by which a person passes through an opening into a space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

Explosion-Proof Lights is an apparatus enclosed in a case that is capable of withstanding an explosion of a specified gas or vapor that may occur within it and of preventing the ignition of a specified gas or vapor surrounding the enclosure by sparks, flashes, or explosion of the gas or vapor within, and that operates at such an external temperature that a surrounding flammable atmosphere will not be ignited thereby.

Fire Hazard means a condition or material that may start or contribute to the spread of fire.

Fire Protection means methods of providing fire prevention, response, detection, control, extinguishment, and engineering.

Fire Response means the activity taken by the employer at the time of an emergency incident involving a fire at the worksite, including fire suppression activities carried out by internal or external resources or a combination of both, or total or partial employee evacuation of the area exposed to the fire.

Fire Response employee means a shipyard employee who carries out the duties and responsibilities of shipyard firefighting in accordance with the fire safety plan.

Fire Response organization means an organized group knowledgeable, trained, and skilled in shipyard firefighting operations that responds to shipyard fire emergencies, including: fire brigades, shipyard fire departments, private or contractual fire departments, and municipal fire departments.

Fire Suppression means the activities involved in controlling and extinguishing fires.

Fire Watch means the activity of observing and responding to the fire hazards associated with hot work in shipyard employment and the employees designated to do so.

Fixed Extinguishing system means a permanently installed fire protection system that either extinguishes or controls fire occurring in the space it protects.

Flammable Liquid means any liquid having a flashpoint below 100 °F (37.8 °C), except any mixture having components with flashpoints of 100 °F (37.8 °C) or higher, the total of which make up 99 percent or more of the total volume of the mixture.

Gangway means any ramp-like or stair-like means of access provided to enable personnel to board or leave a vessel including accommodation ladders, gangplanks, and brows.

Gas Freeing are operations performed in testing, evaluating, removing or controlling hazardous materials or conditions, within or related to a confined or enclosed spaces, which may present hazards to personnel entering or working in, on or adjacent to the space.

General Exhaust (Dilution) Ventilation Systems also called dilution ventilation, is different from local exhaust ventilation because instead of capturing emissions at their source and removing them from the air, general exhaust ventilation allows the contaminant to be emitted into the workplace air and then dilutes the concentration of the contaminant to an acceptable level (e.g., to the PEL or below). Dilution systems are often used to control evaporated liquids.

Hazardous Material means a material that has one or more of the following characteristics:

- has a flash point below 140F, closed cup, or is subject to spontaneous heating;
- has a threshold limit value below 500 ppm in the case of a gas or vapor, below 500 mg/m³ for fumes, and below 25 mppcf in case of a dust.
- has a single dose oral LD₅₀ below 500 mg/kg;
- is subject to polymerization with the release of large amounts of energy;
- is a strong oxidizing or reducing agent;
- causes first degree burns to skin in short time exposure, or is systemically toxic by skin contact; or
- in the course of normal operations, may produce dusts, gases, fumes, vapors, mists, or smokes which have one or more of the above characteristics.

Hazardous Substance means a substance which by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritant, or otherwise harmful is likely to cause injury.

Hazardous Substance means a substance likely to cause injury by reason of being explosive, flammable, poisonous, corrosive, oxidizing, an irritant, or otherwise harmful.

Hot Work means any activity involving riveting, welding, burning, powder-actuated tools, or similar fire-producing operations. Grinding, drilling, abrasive blasting, or similar spark-producing operations are also considered hot work except when such operations are isolated physically from any atmosphere containing more than 10% of the lower explosive limit of a flammable or combustible substance.

Hose Systems means fire protection systems consisting of a water supply, approved fire hose, and a means to control the flow of water at the output end of the hose.

Host Employer means an employer who is in charge of coordinating work or who hires other employers to perform work at a multi-employer workplace.

Immediately Dangerous to Life or Health (IDLH) means an atmosphere that poses an immediate threat to life or that is likely to result in acute or immediate severe health effects.

Incident Management System means a system that defines the roles and responsibilities to be assumed by personnel and the operating procedures to be used in the management and direction of emergency operations; the system is also referred to as an "incident command system" (ICS).

Incipient Stage Fire means a fire, in the initial or beginning stage, which can be controlled or extinguished by portable fire extinguishers, Class II standpipe or small hose systems without the need for protective clothing or breathing apparatus.

Inert or Inerted Atmosphere means an atmospheric condition where:

1. The oxygen content of the atmosphere in the space is maintained at a level equal to or less than 8.0 percent by volume or at a level at or below 50 percent of the amount required to support combustion, whichever is less; or
2. The space is flooded with water and the vapor concentration of flammable or combustible materials in the free space atmosphere above the water line is less than 10 percent of the lower explosive limit for the flammable or combustible material.

Inerting means the displacement of the atmosphere in a permit space by noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible. This procedure produces an IDLH oxygen-deficient atmosphere.

Interior Structural Firefighting Operations means the physical activity of fire response, rescue, or both involving a fire beyond the incipient stage inside of buildings, enclosed structures, vessels, and vessel sections.

Labeled means identified with a sign, placard, or other form of written communication, including pictograms, that provides information on the status or condition of the work space to which it is attached.

Ledger or stringer is a horizontal scaffold member which extends from post to post and which supports the bearer forming a tie between the posts.

Local Exhaust Ventilation Systems is composed of five parts: fans, hoods, ducts, air cleaners, and stacks. Local exhaust ventilation is designed to capture an emitted contaminant at or near its source, before the contaminant has a chance to disperse into the workplace air.

Lower Explosive Limit (LEL) means the minimum concentration of vapor in air below which propagation of a flame does not occur in the presence of an ignition source.

Marine Chemist means an individual who possesses a current Marine Chemist Certificate issued by the National Fire Protection Association.

Multi-Employer Workplace means a workplace where there is a host employer and at least one contract employer.

Nationally Recognized Testing Laboratory (NRTL) means an organization recognized by OSHA, in accordance with Appendix A of 29 CFR 1910.7, that tests for safety and lists or labels or accepts equipment and materials that meet all the criteria found in 1910.7(b)(1) through (b)(4)(ii).

Not Safe for Hot Work denotes a space where hot work may not be performed because the conditions do not meet the criteria for Safe for Hot Work.

Not Safe for Workers denotes a space where an employee may not enter because the conditions do not meet the criteria for Safe for Workers.

Oxygen-Deficient Atmosphere means an atmosphere having an oxygen concentration of less than 19.5% by volume.

Oxygen-Enriched Atmosphere means an atmosphere that contains 22% or more oxygen by volume.

Personal Alert Safety System (PASS) means a device that sounds a loud signal if the wearer becomes immobilized or is motionless for 30 seconds or more.

Physical Isolation means the elimination of a fire hazard by removing the hazard from the work area (at least 35 feet for combustibles), by covering or shielding the hazard with a fire-resistant material, or physically preventing the hazard from entering the work area.

Physically Isolated means positive isolation of the supply from the distribution piping of a fixed extinguishing system. Examples of ways to physically isolate include: removing a spool piece and installing a blank flange; providing a double block and bleed valve system; or completely disconnecting valves and piping from all cylinders or other pressure vessels containing extinguishing agents.

Portable Unfired Pressure Vessel means any pressure container or vessel used aboard ship, other than the ship's equipment, containing liquids or gases under pressure, excepting pressure vessels built to Interstate Commerce Commission (ICC) regulations under 49 CFR Part 178: Specifications for Packagings, Subparts C: Specifications for Cylinders and Subpart H: Specifications for Portable Tanks.

Powder Actuated Fastening Tool means a tool or machine which drives a stud, pin, or fastener by means of an explosive charge.

Protected Space means any space into which a fixed extinguishing system can discharge.

Proximity Firefighting means specialized fire-fighting operations that require specialized thermal protection and may include the activities of rescue, fire suppression, and property conservation at incidents involving fires producing very high levels of conductive, convective, and radiant heat such as aircraft fires, bulk flammable gas fires, and bulk flammable liquid fires. Proximity firefighting operations usually are exterior operations but may be combined with structural firefighting operations. Proximity firefighting is not entry firefighting.

Qualified Instructor means a person with specific knowledge, training, and experience in fire response or fire watch activities to cover the material found in § 1915.508(b) or (c).

Related Employment means any employment performed as an incident to or in conjunction with ship repairing, shipbuilding or shipbreaking work, including, but not restricted to, inspection, testing, and employment as a watchman.

Rescue means locating endangered persons at an emergency incident, removing those persons from danger, treating the injured, and transporting the injured to an appropriate health care facility.

River Tow Boat means a shallow draft, low free board, self-propelled vessel designed to tow river barges by pushing ahead. For purposes of this section, the term does not include other towing vessels.

Safe for Hot Work denotes a space that meets all of the following criteria:

1. The oxygen content of the atmosphere does not exceed 22.0 percent by volume;
2. The concentration of flammable vapors in the atmosphere is less than 10 percent of the lower explosive limit;
3. The residues or materials in the space are not capable of producing a higher concentration than permitted in paragraph (1) or (2) of the above, under existing atmospheric conditions in the presence of hot work and while maintained as directed by the Marine Chemist or competent person, and
4. All adjacent spaces have been cleaned, or inerted, or treated sufficiently to prevent the spread of fire.

Safe for Workers denotes a space that meets the following criteria:

1. The oxygen content of the atmosphere is at least 19.5 percent and below 22 percent by volume;
2. The concentration of flammable vapors is below 10 percent of the lower explosive limit (LEL);
3. Any toxic materials in the atmosphere associated with cargo, fuel, tank coatings, or inerting media are within permissible concentrations at the time of the inspection; and
4. Any residues or materials associated with the work authorized by the Marine Chemist, Certified Industrial Hygienist, or competent person will not produce uncontrolled release of toxic materials under existing atmospheric conditions while maintained as directed.

Safety and Health Advisory Committee (SHAC) is composed of representatives from Labor, Management, consultants, and academia. This committee operates within the framework of the National Shipbuilding Research Program (NSRP) which is a DoD-funded program established to help reduce the cost of Shipbuilding and Ship Repair for both private and public shipyards. The SHAC committee is chartered with the expressed mission to initiate and implement efforts that will reduce injuries and illnesses to our industry workers as well as the associated costs related to these injuries. In accomplishing this mission, the SHAC committee entertains a close working relationship with OSHA and NIOSH on a variety of subjects including regulation reform, injury reduction and safety innovations.

Ship breaking means any breaking down of a vessel's structure for the purpose of scrapping the vessel, including the removal of gear, equipment or any component part of a vessel.

Shipbuilding means the construction of a vessel including the installation of machinery and equipment.

Shipyard Employment means ship repairing, shipbuilding, ship breaking, and related employments.

Shipyard firefighting means the activity of rescue, fire suppression, and property conservation involving buildings, enclosed structures, vehicles, vessels, aircraft, or similar properties involved in a fire or emergency situation.

Ship Repair and **Ship Repairing** mean any repair of a vessel including, but not restricted to, alterations, conversions, installations, cleaning, painting, and maintenance work.

Small Hose System means a system of hoses ranging in diameter from 5/8" (1.6 cm) up to 1 1/2" (3.8 cm) which is for the use of employees and which provides a means for the control and extinguishment of incipient stage fires.

Space means an area on a vessel or vessel section or within a shipyard such as, but not limited to: cargo tanks or holds; pump or engine rooms; storage lockers; tanks containing flammable or combustible liquids, gases, or solids; rooms within buildings; crawl spaces; tunnels; or access ways. The atmosphere within a space is the entire area within its bounds.

Standpipe means a fixed fire protection system consisting of piping and hose connections used to supply water to approved hose lines or sprinkler systems. The hose may or may not be connected to the system.

Upper Explosive Limit (UEL) means the maximum concentration of flammable vapor in air above which propagation of flame does not occur on contact with a source of ignition.

Vessel includes every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water, including special purpose floating structures not primarily designed for or used as a means of transportation on water.

Vessel Section means a sub-assembly, module, or other component of a vessel being built, repaired, or broken.

Visual Inspection means the physical survey of the space, its surroundings and contents to identify hazards such as, but not limited to, restricted accessibility, residues, unguarded machinery, and piping or electrical systems.