

**WAC 296-304-020 Confined and enclosed spaces and other dangerous atmospheres in shipyard employment.** Scope, application and definitions applicable to this subsection:

(1) Scope and application. This section applies to work in confined and enclosed spaces and other dangerous atmospheres in shipyard employment, including vessels, vessel sections, and on land-side operations regardless of geographic location.

(2) Definitions applicable to this section:

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

**Certified industrial hygienist (CIH).** An industrial hygienist who is certified by the American Board of Industrial Hygiene.

**Coast Guard authorized person.** An individual who meets the requirement of WAC 296-304-02015, Appendix C, for tank vessels, for passenger vessels, and for cargo and miscellaneous vessels.

**Dangerous atmosphere.** 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.

**Director.** The director of the department of labor and industries or his/her designated representative.

**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.** 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.

**Hot work.** Any activity involving riveting, welding, burning, the use of 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 percent of the lower explosive limit of a flammable or combustible substance.

**Immediately dangerous to life or health (IDLH).** An atmosphere that poses an immediate threat to life or that is likely to result in acute or immediate severe health effects.

**Inert or inerted atmosphere.** An atmospheric condition where:

(a) 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

(b) 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.

**Labeled.** 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.

**Lower explosive limit (LEL).** 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.** An individual who possesses a current marine chemist certificate issued by the National Fire Protection Association (NFPA).

**NFPA.** National Fire Protection Association.

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

**Not safe for hot work.** 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.** A space where an employee may not enter because the conditions do not meet the criteria for "safe for workers."

**Oxygen-deficient atmosphere.** An atmosphere having an oxygen concentration of less than 19.5 percent by volume.

**Oxygen-enriched atmosphere.** An atmosphere that contains 22.0 percent or more oxygen by volume.

**Safe for hot work.** A space that meets all of the following criteria:

(a) The oxygen content of the atmosphere does not exceed 22.0 percent by volume;

(b) The concentration of flammable vapors in the atmosphere is less than 10 percent of the lower explosive limit;

(c) The residues or materials in the space are not capable of producing a higher concentration than permitted in (a) or (b) 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

(d) All adjacent spaces have been cleaned, or inerted, or treated sufficiently to prevent the spread of fire.

**Safe for workers.** A space that meets the following criteria:

(a) The oxygen content of the atmosphere is at least 19.5 percent and below 22.0 percent by volume;

(b) The concentration of flammable vapors is below 10 percent of the lower explosive limit (LEL);

(c) 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

(d) 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.

**Space.** 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 accessways. The atmosphere within a space is the entire area within its bounds.

**Upper explosive limit (UEL).** The maximum concentration of flammable vapor in air above which propagation of flame does not occur on contact with a source of ignition.

**Vessel section.** A subassembly, module, or other component of a vessel being built, repaired, or broken.

**Visual inspection.** 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.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-18-075, § 296-304-020, filed 9/5/17, effective 10/6/17; WSR 07-17-034, § 296-304-020, filed 8/7/07, effective 12/1/07. Statutory Authority: Chapter 49.17 RCW. WSR 95-04-006, § 296-304-020, filed 1/18/95, effective 3/10/95; WSR 93-04-111 (Order 92-15), § 296-304-020, filed 2/3/93, effective 3/15/93; Order 74-25, § 296-304-020, filed 5/7/74.]