

immediately upon starting the engine, and any leaks shall be corrected at once.

(c) When internal combustion engines on vehicles, such as forklifts and mobile cranes, or on portable equipment such as fans, generators, and pumps exhaust into the atmosphere below decks, the competent person shall make tests of the carbon monoxide content of the atmosphere as frequently as conditions require to ensure that dangerous concentrations do not develop. Employees shall be removed from the compartment involved when the carbon monoxide concentration exceeds 50 parts per million (0.005%). The employer shall use blowers sufficient in size and number and so arranged as to maintain the concentration below this allowable limit before work is resumed.

Subpart I—Personal Protective Equipment (PPE)

SOURCE: 61 FR 26352, May 24, 1996, unless otherwise noted.

§ 1915.151 Scope, application and definitions.

(a) *Scope and application.* This subpart applies to all work in shipyard employment regardless of geographic location.

(b) *Definitions applicable to this subpart.* *Anchorage* means a secure point of attachment for lifelines, lanyards, or deceleration devices.

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

Body harness means straps which 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.

Connector means a device which is used to couple (connect) parts of a personal fall arrest system or parts of a positioning device system together. It may be an independent component of the system, such as a carabiner, or it may be an integral component of part of the system (such as a buckle or D-ring sewn into a body belt or body har-

ness or a snaphook spliced or sewn to a lanyard or self-retracting lanyard).

Deceleration device means any mechanism, such as a rope grab, ripstitch lanyard, specially woven lanyard, tearing or deforming lanyard, or automatic self-retracting lifeline/lanyard, which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

Deceleration distance means the additional vertical distance a falling employee travels, excluding lifeline elongation and free fall distance, before stopping, from the point at which the deceleration device begins to operate. It is measured as the distance between the location of an employee's body belt or body harness attachment point at the moment of activation (at the onset of fall arrest forces) of the deceleration device during a fall, and the location of that attachment point after the employee comes to a full stop.

Equivalent means alternative designs, materials, or methods to protect against a hazard which the employer can demonstrate will provide an equal or greater degree of safety for employees than the method or item specified in the standard.

Free fall means the act of falling before a personal fall arrest system begins to apply force to arrest the fall.

Free fall distance means the vertical displacement of the fall arrest attachment point on the employee's body belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall. This distance excludes deceleration distance, and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before the device operates and fall arrest forces occur.

Lanyard means a flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline, or anchorage.

Lifeline means a component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to

stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.

Lower levels means those areas or surfaces to which an employee can fall. Such areas or surfaces include but are not limited to ground levels, floors, ramps, tanks, materials, water, excavations, pits, vessels, structures, or portions thereof.

Personal fall arrest system means a system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, body belt or body harness and may include a lanyard, a deceleration device, a lifeline, or a suitable combination of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

Positioning device system means a body belt or body harness system rigged to allow an employee to be supported at an elevated vertical surface, such as a wall or window, and to be able to work with both hands free while leaning.

Qualified person means a person who by possession of a recognized degree or certificate of professional standing, or who, by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems related to the subject matter and work.

Restraint (tether) line means a line from an anchorage, or between anchorages, to which the employee is secured in such a way as to prevent the employee from walking or falling off an elevated work surface. Note: A restraint line is not necessarily designed to withstand forces resulting from a fall.

Rope grab means a deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an employee. A rope grab usually employs the principle of inertial locking, cam/level locking or both.

§ 1915.152 General requirements.

(a) *Provision and use of equipment.* The employer shall provide and shall ensure that each affected employee uses the appropriate personal protective equipment (PPE) for the eyes, face, head, extremities, torso, and respiratory sys-

tem, including protective clothing, protective shields, protective barriers, personal fall protection equipment, and life saving equipment, meeting the applicable provisions of this subpart, wherever employees are exposed to work activity hazards that require the use of PPE.

(b) *Hazard assessment and equipment.* The employer shall assess its work activity to determine whether there are hazards present, or likely to be present, which necessitate the employee's use of PPE. If such hazards are present, or likely to be present, the employer shall:

(1) Select the type of PPE that will protect the affected employee from the hazards identified in the occupational hazard assessment;

(2) Communicate selection decisions to affected employees;

(3) Select PPE that properly fits each affected employee; and

(4) Verify that the required occupational hazard assessment has been performed through a document that contains the following information: occupation, the date(s) of the hazard assessment, and the name of the person performing the hazard assessment.

NOTE 1 TO PARAGRAPH (b): A hazard assessment conducted according to the trade or occupation of affected employees will be considered to comply with paragraph (b) of this section, if the assessment addresses any PPE-related hazards to which employees are exposed in the course of their work activities.

NOTE 2 TO PARAGRAPH (b): Non-mandatory appendix A to this subpart contains examples of procedures that will comply with the requirement for an occupational hazard assessment.

(c) *Defective and damaged equipment.* Defective or damaged PPE shall not be used.

(d) *Reissued equipment.* The employer shall ensure that all unsanitary PPE, including that which has been used by employees, be cleaned and disinfected before it is reissued.

(e) *Training.* (1) The employer shall provide training to each employee who is required, by this section, to use PPE (exception: training in the use of personal fall arrest systems and positioning device systems training is covered in §§1915.159 and 1915.160). Each