

Which OSHA Standards Apply

29 CFR 1915—SHIPYARD EMPLOYMENT STANDARDS

OVERVIEW:

North Carolina is an [OSHA-approved State Plan](#) that covers both private and state and local government workers. With certain exceptions, the N.C. Department of Labor (NCDOL) adopts federal OSHA standards verbatim. [Standards information and activity](#) provides the status of the Occupational Safety and Health (OSH) Division's adoption of federal standards and compliance dates. When OSH Administrative rules differ from federal OSHA standards, employers must comply with the state-specific rules.

The OSH Division [enforcement procedures](#) provide guidance to compliance personnel, to ensure responsibilities related to enforcement of the OSHA standards are carried out in an effective, efficient and consistent manner. Some of the guidance documents are federal documents that have been adopted for use in N.C. while others have been created specifically for N.C. To learn more about the inspection process, go to the [compliance inspection process](#) webpage.

Many employers have questions regarding which Occupational Safety and Health standards apply to them. For this reason, the OSH Division has put together information at the following links that will help the employer determine which standards apply to them as it pertains to [recordkeeping](#), [general industry](#), [construction](#), [agriculture](#), [shipyard employment](#) (public sector only) and [marine terminals](#) (public sector only). This includes [North Carolina state-specific](#) standards. The OSH Division **does not** have enforcement jurisdiction for the longshoring standards.

Does 29 CFR 1915—Shipyard Employment Standards Apply?

[29 CFR Part 1915 Shipyard Employment](#) standards include the building, repairing, and breaking (scrapping, disposal, recycling) of vessels, or a section of a vessel, without regard to geographical location. It also involves work activities aboard floating vessels as well as vessel-related work activities on the land, docks, piers, and other areas of a shipyard. To identify the specific standards within Part 1915 that apply to you, go to the [Shipyard Employment Standards](#) webpage.

[Shipbuilding](#) means the construction of a vessel including the installation of machinery and equipment.

[Shipbreaking](#) 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.

[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.

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Although 29 CFR Part 1915 covers many hazards in shipyard employment, it does not cover all hazards. Therefore, some of the 29 CFR Part 1910 General Industry standards may also be applicable in shipyard employment.

In North Carolina, the OSH Division has authority over public sector shipyard employment activities on inspected vessels if the work is performed by public sector shipyard employees (non-crew members). The U.S. Coast Guard regulates working conditions for seamen (crew members) on inspected vessels while Federal OSHA has authority to cite private sector shipyard employment activities on inspected vessels if the work is performed by shipyard employees (non-crew members).

Note: An inspected vessel is any ship, boat, barge, etc., that has or is required to have a Certificate of Inspection (COI) issued by the U.S. Coast Guard.

On uninspected vessels, the OSH Division has authority to cite public sector shipyard employers for all working conditions. The OSH Division can also cite the owners or operators of uninspected vessels for violations involving shipbuilding, shipbreaking, and ship repair operations regardless of whether the work is performed by seamen (crew members) or by non-crew members unless the hazards are covered by U.S. Coast Guard regulations.

[Field Operations Manual Chapter 18 - Maritime Inspection Procedures](#) provides compliance guidance and reference documents specific to maritime inspections conducted by the OSH Division.

Note: Some activities within a shipyard may also be covered under [29 CFR Part 1926 Construction](#) standards if considered [Construction work](#).

INSTRUCTIONS:

To assist the employer in identifying which **Shipyard Employment standards** apply to them, questions regarding the subparts (i.e., North Carolina subchapters) and subsequent standards are provided to help the employer identify which are applicable to the worksite. Once the standards have been identified, the employer is better able to develop their own safety and health management program.

To start this process, please go through each subpart below to identify the standards that apply to your organization by answering yes, no, or unsure. Be sure to come back to the subpart or standard for any answers that were identified as “unsure”.

KEY POINTS:

- Whenever a standard provides a “scope” and/or “application”, be sure to read it. The scope and application state who, what or how a standard applies. It also provides any exemptions from the standard. In some cases, you may find that a standard does not apply to your organization based on the scope and application.
- If a standard provides “definitions”, be sure to read them. Information about a standard such as who and how it applies can also be found in a definition.

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- Any time you see “general requirements” listed as a standard in a subpart that you need to comply with, that will generally be an automatic “yes”.
- Most standards have [interpretations](#) which should be referenced when available for clarification of the standard. Other useful [compliance enforcement documents](#) to reference include compliance directives (CPL), field operations manual (FOM), standards directives (STD), and operational procedure notices (OPN).

Note: This webpage is to be used in conjunction with the [OSHA Standards With Special Requirements](#) and [Shipyard Employment Standards With Special Requirements](#) (29 CFR Part 1915) webpages. More resources can be found on the webpage on [QR Codes](#) and [Maritime Safety and Health Resources](#).

29 CFR Part 1915 - Shipyard Employment Standards

- *Subpart A - [General Provisions](#)*
- *Subpart B - [Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment](#)*
- *Subpart C - [Surface Preparation and Preservation](#)*
- *Subpart D - [Welding, Cutting and Heating](#)*
- *Subpart E - [Scaffolds, Ladders and Other Working Surfaces](#)*
- *Subpart F - [General Working Conditions](#)*
- *Subpart G - [Gear and Equipment for Rigging and Materials Handling](#)*
- *Subpart H - [Tools and Related Equipment](#)*
- *Subpart I - [Personal Protective Equipment](#)*
- *Subpart J - [Ship's Machinery and Piping Systems](#)*
- *Subpart K - [Portable, Unfired Pressure Vessels, Drums and Containers, Other Than Ship's Equipment](#)*
- *Subpart L - [Electrical Machinery](#)*
- *Subpart P - [Fire Protection in Shipyard Employment](#)*
- *Subpart Z - [Toxic and Hazardous Substances](#)*
- *[General Duty Clause](#)*
- *[Additional Assistance for Shipyard Employment](#)*
- *[Special Emphasis Programs](#)*

Please Note: [Subparts M - O](#) and [Q - Y](#) are reserved.

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WHICH [29 CFR PART 1915](#)—SHIPYARD EMPLOYMENT STANDARDS APPLY?

Subpart A—General Provisions

Does “ [Subpart A—General Provisions](#)” apply to you? Yes / No / Unsure If yes, please continue.

[Subpart A](#) provides the standards related to scope and application, responsibility, definitions, [incorporation by reference](#) (i.e., consensus standards), commercial diving operations, and competent person.

Do you have employments, or related employments, to ship repairing, shipbuilding or shipbreaking? If yes, according to [scope and application](#), this subpart applies to you.

Under the standard on [responsibility](#), it states that the responsibility for compliance to shipyard employment standards are placed upon "employers". The term, [employer](#), is defined as an employer, any of whose employees are employed, in whole or in part, in ship repairing, shipbuilding, shipbreaking or related employments as defined in this section on the navigable waters of the United States, including dry docks, graving docks and marine railways. It does not apply to owners, operators, agents or masters of vessels unless such persons are acting as "employers." *Note: This is not intended to relieve owners, operators, agents or masters of vessels who are not "employers" from responsibilities or duties placed upon them by law, regulation or custom.*

The standard, [competent person](#), provides for a competent person that meets specific criteria to conduct tests, inspections, evaluate and to maintain records.

[Definitions](#) includes many key terms such as:

[Ship repair \(ship repairing\)](#) means any repair of a vessel including, but not restricted to, alterations, conversions, installations, cleaning, painting, and maintenance work.

[Shipbuilding](#) means the construction of a vessel including the installation of machinery and equipment.

[Shipbreaking](#) 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.

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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.

Competent person 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 subpart B - Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment, subpart C - Surface Preparation and Preservation, and subpart D - Welding, Cutting and Heating, except for the standard on painting (b)(8) and the standard on flammable liquids (a)(5), the competent person must also meet the additional requirements contained in the competent person standard (i.e., designation, skills, knowledge, recordkeeping).

Additional related information can be found on the safety and health topics page for competent person.

Do you have commercial diving operations? If yes, then you need to comply with the standard on commercial diving operations which requires these operations to comply with the general industry standards on commercial diving operations. Reference the general industry webpage "Does Subpart T - Commercial Diving Operations Apply to You?" for more information.

Learn more about the standards within Subpart A that have "Special Requirements" including programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

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Subpart B - Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment

Does "Subpart B - Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment" Apply to You? Yes / No / Unsure If yes, please continue.

[Subpart B](#) provides the [scope, application, and definitions](#) applicable to the subpart which states that it 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. It also provides requirements for cleaning and other cold work, hot work, [maintenance of safe conditions](#) (i.e., certificates, preventing hazardous materials from entering spaces, alteration of existing conditions, competent person requirements), and [warning signs and labels](#) (i.e., posting).

Do you have confined spaces? Do you have dangerous atmospheres? If you stated yes to either question, please proceed below for more information.

[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.

[Competent person](#) 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 [confined and enclosed spaces and other dangerous atmospheres in shipyard employment](#), the competent person must also meet the additional requirements contained in the [competent person](#) standard (i.e., designation, skills, knowledge, recordkeeping).

[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.

[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.

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

Learn more about the standards within Subpart A that have "[Special Requirements](#)" including programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

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Additional information can be found on the safety and health topic page for [competent person](#), [confined spaces](#) and [signs, markings and tags](#).

Subpart B - Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment

Do employees work in confined spaces? Yes / No / Unsure

If yes, then you need to comply with the standard, [precautions and the order of testing before entering confined and enclosed spaces and other dangerous atmospheres](#). It provides requirements pertaining to oxygen content, flammable atmospheres, toxic, corrosive, irritant or fumigated atmospheres and residues, training, rescue teams, and hazard information exchanges.

The appendices cover the following: [appendix A](#) provides compliance assistance guidelines for confined and enclosed spaces and other dangerous atmospheres and [appendix B](#) provides a reprint of U.S. Coast Guard regulations referenced in subpart B for determination of Coast Guard authorized persons.

Also reference the standard on [access to cargo spaces and confined spaces](#) for additional requirements related to confined spaces and cargo spaces.

Additional information can be found on the safety and health topics pages for [confined spaces](#), [flammable liquids](#), [organic solvents](#), [hazard communication](#), [respiratory protection](#), [competent person](#) and [personal protective equipment](#). Additionally, refer to [CPL 02-01-061 - Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment](#) for additional guidance.

Do employees clean or do other cold work? Yes / No / Unsure

If yes, then the standard on [cleaning and other cold work](#) applies to you. It includes requirements pertaining to covered locations (i.e., spaces), ventilation, testing, atmosphere monitoring, competent person, respiratory protection and personal protective equipment.

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

Additional information can be found on the safety and health topics pages for [confined spaces](#), [hazard communication](#), [respiratory protection](#), [flammable liquids](#), [competent person](#) and [personal protective equipment](#).

Do employees conduct hot work? Yes / No / Unsure

If yes, then you need to comply with the standard on [hot work](#). It provides requirements for confined spaces, enclosed spaces, competent person, and dangerous atmospheres.

Hot work means any activity involving riveting, welding, burning, or the use of powder-actuated tools or similar fire-producing operations. Grinding, drilling, abrasive blasting, or similar spark-producing

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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.

Additional information can be found on the safety and health topics pages for [confined spaces](#), [hazard communication](#), [respiratory protection](#), [welding and cutting](#), [radiation, ionizing and non-ionizing](#), [competent person](#) and [personal protective equipment](#).

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Subpart C - Surface Preparation and Preservation

Does "Subpart C - Surface Preparation and Preservation" Apply to You? Yes / No / Unsure

If yes, please continue.

[Subpart C](#) provides the [scope and application](#) which states that it applies to ship repairing and shipbuilding but **does not apply** to shipbreaking. It provides standards for toxic cleaning solvents, chemical paint and preservative removers, mechanical paint removers, painting and flammable liquids.

Do you have operations involving cleaning solvents, chemical paint, preservative removers, mechanical paint removers, painting and/or flammable liquids? If yes, then you may need to comply with all or portions of this subpart. Please proceed for more information.

[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 material](#) means a material which has one or more of the following characteristics:

- *Has a flash point below 140 degrees Fahrenheit (F), closed cup, or is subject to spontaneous heating;*
- *Has a threshold limit value below 500 parts per million (PPM). in the case of a gas or vapor, below 500 milligram/meter (mg./m).*
- *For fumes, and below 25 millions of particles per cubic foot (MPPCF). In case of a dust; (3) has a single dose oral Lethal Dose (LD (50) below 500 milligram/kilogram (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.*

Learn more about the standards within Subpart C that have "[Special Requirements](#)" including programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

Subpart C - Surface Preparation and Preservation

Do employees use toxic cleaning solvents? Yes / No / Unsure

If yes, then you need to comply with the standard on [toxic cleaning solvents](#). It provides requirements for measures that safeguard the health of employees, threshold limit values, ventilation, respiratory protection, and personal protective equipment. It also references complying with the standard on [flammable liquids](#) when flammable solvents are used.

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Additional information can be found on the safety and health topics pages for [hazard communication](#), [respiratory protection](#), [organic solvents](#), [hierarchy of controls](#), [medical services and first aid](#), [flammable liquids](#) and [personal protective equipment](#).

Do employees use chemical paint and/or preservative removers? Yes / No / Unsure

If yes, then you need to comply with the standard on [chemical paint and preservative removers](#). It provides requirements for eye and face protection, skin protection, face shields, and the use of steam guns.

It also requires complying with the standard on [flammable liquids](#) when using flammable paint and preservative removers and the standard on [toxic cleaning solvents](#) when using chemical paint and preservative removers which contain volatile and toxic solvents. In addition, the personal protective equipment must meet the criteria of [subpart I - personal protective equipment](#).

Additional information can be found on the safety and health topics pages for [hazard communication](#), [respiratory protection](#), [organic solvents](#), [flammable liquids](#), [spray finishing operations](#) and [personal protective equipment](#).

Do employees use mechanical paint removers? Yes / No / Unsure

If yes, then you need to comply with the standard on [mechanical paint removers](#). This standard provides the requirements for power tools, flame removal, personal protective equipment, and abrasive blasting.

Additional information can be found on the safety and health topics pages for [hazard communication](#), [respiratory protection](#), [organic solvents](#), [flammable liquids](#), [compressed air and compressed air equipment](#) and [personal protective equipment](#).

Are employees painting? Yes / No / Unsure

If yes, then you need to comply with the standard on [painting](#). It includes requirements for using paints mixed with toxic solvents, use in confined spaces, ventilation requirements, use of explosion proof lights, personal protective equipment, respiratory protection, ignition hazards, having a competent person, along with grounding and bonding requirements. It also states that when flammable paints or vehicles are used, you must meet the requirements of the standard on [flammable liquids](#). In addition, the use of respirators must meet the requirements of the [respiratory protection](#) standard.

[Competent person](#) 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

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and precautions to be taken to ensure the safety of employees as required by the particular regulation under the condition to which it applies.

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.

Additional information can be found on the safety and health topics pages for [confined spaces](#), [hazard communication](#), [respiratory protection](#), [organic solvents](#), [flammable liquids](#), [competent person](#), [spray finishing operations](#) and [personal protective equipment](#).

Are employees using flammable liquids? Yes / No / Unsure

If yes, then you need to comply with the standard on [flammable liquids](#). It has requirements pertaining to ignition hazards, competent person, ventilation, fire extinguishing equipment, use of covered metal containers, and explosion proof lights.

Competent person 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.

Additional information can be found on the safety and health topics pages for [hazard communication](#), [respiratory protection](#), [organic solvents](#), [flammable liquids](#), [competent person](#) and [personal protective equipment](#).

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Subpart D - Welding, Cutting and Heating

Does "Subpart D - Welding, Cutting and Heating" Apply to You? Yes / No / Unsure
If yes, please continue.

[Subpart D](#) provides the requirements for welding, cutting and heating. *Do you have welding, cutting or heating operations?* If yes, then this subpart applies to you. The [ventilation and protection in welding, cutting and heating](#) provides the requirements for having mechanical or local ventilation, working in confined spaces, working with metals of toxic significance, and using respiratory protection.

Note: [Paragraph \(a\)](#) Some paragraphs do not apply to shipbreaking or shipbuilding. It also [states](#) that the use of respirators must meet the requirements of the [respiratory protection](#) standard. [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.

Learn more about the standards within Subpart D that have "[Special Requirements](#)" including programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

Additional information can be found on the safety and health topics pages for [welding and cutting](#), [confined spaces](#), [hazard communication](#), [respiratory protection](#), [organic solvents](#), [flammable liquids](#), [fire protection and prevention](#) and [personal protective equipment](#).

Subpart D - Welding, Cutting and Heating

Do you have welding, cutting or heating operations where the surface is covered by preservative coatings? Yes / No / Unsure

If yes, then you need to comply with the standard on [welding, cutting and heating in way of preservative coatings](#). *Note: (a) Some paragraphs do not apply to shipbreaking.* It includes requirements for having a competent person, ignition prevention, working in confined spaces, and use of respirators. It also states that the use of respirators must meet the requirements of the [respiratory protection](#) standard.

[Competent person](#) 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 [confined and enclosed spaces and other dangerous atmospheres in shipyard employment](#), the competent person must also meet the additional requirements contained in the [competent person](#) standard (i.e., designation, skills, knowledge, recordkeeping).

[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.

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Additional information can be found on the safety and health topics pages for [welding and cutting](#), [confined spaces](#), [hazard communication](#), [respiratory protection](#), [organic solvents](#), [flammable liquids](#), [competent person](#), [fire protection and prevention](#) and [personal protective equipment](#).

Are employees welding, cutting or heating hollow metal containers or structures? Yes / No / Unsure

If yes, then you need to comply with the standard on [welding, cutting and heating of hollow metal containers and structures not covered by 1915.12](#) ([Precautions and the order of testing before entering confined and enclosed spaces and other dangerous atmospheres](#)) if you conduct ship repairing, shipbuilding and/or shipbreaking operations. It provides requirements for filling containers with water, ventilation measures, competent person inspections, and testing for vapors and flammables.

Additional information can be found on the safety and health topics pages for [welding and cutting](#), [hazard communication](#), [organic solvents](#), [competent person](#), [fire protection and prevention](#) and [flammable liquids](#).

Do you have gas welding or cutting operations? Yes / No / Unsure

If yes, then you need to comply with the standard on [gas welding and cutting](#) as it applies to ship repairing, shipbuilding and shipbreaking operations. It includes requirements pertaining to transporting, moving and storing compressed gas cylinders, cylinder placement, cylinder treatment, use of fuel gas, fuel gas and oxygen manifolds, hoses, and torches.

Additional information can be found on the safety and health topics pages for [welding and cutting](#), [hazard communication](#), [compressed gases](#), [fire protection and prevention](#) and [flammable liquids](#).

Do you have arc welding or cutting operations? Yes / No / Unsure

If yes, then you need to comply with the standard on [arc welding and cutting](#) as it applies to ship repairing, shipbuilding and shipbreaking operations. It includes requirements pertaining to manual electrode holders, welding cables and connectors (inspections), ground returns and machine grounding, operating instructions, and shielding.

Additional information can be found on the safety and health topics page for [welding and cutting](#) and [fire protection and prevention](#).

Do you use fissionable material?

If yes, then you need to comply with the standard on [uses of fissionable material in ship repairing and shipbuilding](#). *Note: This section applies only to ship repairing and shipbuilding.* This standard provides

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the requirements pertaining to activities involving the use of and exposure to sources of ionizing radiation not only on conventionally powered but also on nuclear powered vessels. It also has specially trained competent person requirements.

Competent person 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.

Additional information can be found on the safety and health topics pages for [welding and cutting](#), [competent person](#) and [radiation, ionizing and non-ionizing](#).

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Subpart E - Scaffolds, Ladders and Other Working Surfaces

Does "Subpart E - Scaffolds, Ladders and Other Working Surfaces" Apply to You?

Yes / No / Unsure If yes, please continue.

[Subpart E](#) provides the requirements for scaffolds and staging, ladders, guarding deck openings and edges, access to vessels, access to and guarding of dry docks and marine railways, access to cargo spaces and confined spaces, and other working surfaces.

Learn more about the standards within Subpart E that have "[Special Requirements](#)" including programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

Do employees use scaffolds or ladders? Are employees exposed to deck openings or edges? Do you have vessels, dry docks, or marine railways? Do you have cargo spaces or confined spaces? Do you have other working surfaces (i.e., restricted quarters, working from small boats or floats, working five feet or above)? If you answered yes to any of these questions, then proceed below for more information.

Subpart E - Scaffolds, Ladders and Other Working Surfaces

Do employees use scaffolds or staging? Yes / No / Unsure

If yes, then you need to comply with the standard on [scaffolds or staging](#). *Note: [Paragraph \(a\)](#): Some paragraphs do not apply to shipbreaking.* It provides general requirements (i.e., supporting the load, lumber material, maintained, competent person) for scaffolding and supports including lumber, steel or other material. It also provides specific requirements for independent pole wood scaffolds, independent pole metal scaffolds, wood trestle and extension trestle ladders, painters' suspended scaffolds, horse scaffolds, other types of scaffolds, scaffold or platform planking, backrails and toeboards and access to staging.

[Competent person](#) 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 [confined and enclosed spaces and other dangerous atmospheres in shipyard employment](#), the competent person must also meet the additional requirements contained in the [competent person](#) standard (i.e., designation, skills, knowledge, recordkeeping).

Additional information can be found on the safety and health topics page for [scaffolds](#) and [competent person](#).

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Do employees use ladders? Yes / No / Unsure

If yes, then you need to comply with the standard on [ladders](#) as it applies to ship repairing, shipbuilding and shipbreaking. It provides general requirements (i.e., use of ladders, strength, securing) along with the construction of portable wood cleated ladders up to 30 feet in length and the construction of portable wood cleated ladders from 30 to 60 feet in length.

Additional information can be found on the safety and health topics page for [stairways and ladders](#).

Are employees exposed to deck openings or edges? Yes / No / Unsure

If yes, then you need to comply with the standard on [guarding of deck openings and edges](#). Note: *Paragraph (a): It applies to ship repairing and shipbuilding operations but not to shipbreaking.* This standard provides the requirements for guarding the following: manholes and other small openings; open hatches; edges of decks; platforms, flats and other similar flat surfaces; decks of vessels afloat (i.e., use of floatation devices); sections of bilges from which floor plates or gratings have been removed (i.e., guardrails); and gratings, walkways and catwalks from which sections or ladders have been removed (i.e., guardrails).

Floatation devices must meet the requirements of [lifesaving equipment](#) and guardrails must meet the requirements found in [paragraph \(j\)\(1\)](#) and [paragraph \(j\)\(2\)](#) of [scaffolds or staging](#).

Additional information can be found on the safety and health topics page for [personal protective equipment](#) and [stairways and ladders](#).

Do employees have access to vessels? Yes / No / Unsure

If yes, then you need to comply with the standard on [access to vessels](#). This standard provides the requirements for access to vessels afloat, access to vessels in drydock or between vessels, access to barges and river towboats, and using jacob's ladders.

A [Jacob's ladder](#) is a marine ladder made of rope or chain with wooden or metal rungs.

Do employees have access to dry docks or marine railways? Yes / No / Unsure

If yes, then you need to comply with the standard on [access to and guarding of dry docks and marine railways](#). It applies to ship repairing, shipbuilding and shipbreaking and provides requirements for maintaining gangways, ramps and other permanent stairways between floating dry docks and pier or bulkhead, providing railings with midrails, use of portable stanchions, and criteria for use of catwalks.

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It also requires guardrails to meet the requirements found in [paragraph \(j\)\(1\)](#) and [paragraph \(j\)\(2\)](#) of [scaffolds or staging](#) and ladders must meet the requirements of the standard on [ladders](#).

Additional information can be found on the safety and health topics page for [stairways and ladders](#).

Do employees have access to cargo spaces or confined spaces? Yes / No / Unsure

If yes, then you must comply with the standard on [access to cargo spaces and confined spaces](#). *Note: This section applies to ship repairing, shipbuilding and shipbreaking except one paragraph applies only to ship repairing.* This standard provides specific requirements for cargo spaces and additional requirements for confined spaces. Also reference [subpart B - confined and enclosed spaces and other dangerous atmospheres in shipyard employment](#) for more requirements pertaining to cargo spaces and confined spaces.

[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.

[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.

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

Additional information can be found on the safety and health topics page for [confined spaces](#).

Do you have other working surfaces? Yes / No / Unsure

If yes, then you may need to comply with the standard on [working surfaces](#). *Note: Paragraph (a): Some paragraphs do not apply to shipbreaking.* This standard provides the requirements for use of planking to remove tripping hazards related to firebox floors, use of work platforms in restricted quarters (i.e., boilers, machinery units, piping), and use of floatation devices when employees are boarding, leaving or working from small boats or floats. It also provides requirements for the use of scaffolds, ladders or safety belts and lifelines when employees are working 5 feet or more above a solid surface.

Floatation devices must meet the requirements of [lifesaving equipment](#). Ladders must meet the requirements of the standard on [ladders](#) and scaffolds must meet the requirements of the [scaffolds or staging](#) standard. In addition, safety belts and lifelines must meet the requirements of [personal fall arrest systems \(PFAS\)](#) and [positioning device systems](#).

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Additional information can be found on the safety and health topics page for [stairways and ladders](#), [scaffolds](#), [fall protection](#), and [personal protective equipment](#).

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Subpart F - General Working Conditions

Does "Subpart F - Terminal Facilities" Apply to You? Yes / No / Unsure If yes, please continue.

[Subpart F](#) provides the requirements for general working conditions in shipyard employment. According to [scope, application, definitions, and effective dates](#), this includes work on vessels, on vessel sections, and at landside operations, regardless of geographic location.

Do your employees work on vessels, on vessel sections, or at landside operations, regardless of geographic location? This should be yes as this subpart provides general working conditions that should apply to most, if not all, of your operations.

This subpart includes the standards on [housekeeping](#) (i.e., maintaining good housekeeping, eliminating slippery conditions, walkway maintenance, maintaining working surfaces), [lighting](#) (i.e., maintaining adequate lighting, use of temporary lights, portable lights, and explosion-proof self-contained lights), [utilities](#) (i.e., steam supply system, steam hoses, electric shore power, heat lamps), [medical services and first aid](#) (i.e., readily accessible, advice and consultation, first aid providers, first aid supplies, quick drenching and flushing facilities, basket stretchers), [sanitation](#) (i.e., accessible sanitation facilities, potable water, non-potable water, toilets, handwashing facilities, showers, eating, drinking and break areas, waste disposal, vermin control), [safety color code for marking physical hazards](#) (i.e., color codes to be used for fire (red), danger (red), stop (red); physical hazards (yellow) and caution (yellow), [accident prevention signs and tags](#) (i.e., danger, biohazard, slow moving vehicle, caution), and [retention of DOT markings, placards, and labels](#) (i.e., retention of markings, placards and labels). [Appendix A](#) for this subpart provides guidance on first aid kits and automated external defibrillators.

Additional information for these standards can be found on the safety and health topics pages for [medical services and first aid](#), [electrical safety](#), [illumination](#) and [eyewash stations and emergency showers](#).

In addition, it provides the standards for working alone, vessel's radar and communication systems, lifeboats, servicing machinery, equipment and systems, use of motor vehicles, powered industrial trucks, and single and multi-piece rim wheels.

Do your employees work alone? Do employees work on or around a vessel's radar and communication system? Do you have lifeboats? Do employees service machinery, equipment and/or systems? Are motor vehicles used at the worksite to transport employees, materials, or property? Do you have powered industrial trucks? Do employees service multi-piece and single piece rim wheels? If you said yes to any of these questions, proceed below for more information.

Learn more about the standards within Subpart F that have "[Special Requirements](#)" including programs and plans, training and other forms of communication, procedures and controls, signs and markings,

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qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

Subpart F - General Working Conditions

Do employees work alone? Yes / No / Unsure

If yes, then you need to comply with the standard on [working alone](#). This standard provides requirements for employees working alone in confined spaces and isolated areas. It also requires accounting (i.e., visual, verbal) for employees at regular intervals during and at the end of the workshift.

[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.

More information related to confined spaces can be found in [subpart B - confined and enclosed spaces and other dangerous atmospheres in shipyard employment](#) and the standard on [access to cargo spaces and confined spaces](#).

Additional information can be found on the safety and health topics page for [confined spaces](#).

Do employees service or work in the vicinity of a vessel's radar and communication systems?
Yes / No / Unsure

If yes, then you need to comply with the standard on [vessel radar and communication systems](#). This standard requires that servicing of the systems must be done in compliance with the standard on [control of hazardous energy \(lockout/tags-plus\)](#). It also provides requirements for securing the vessel's radar and communication system, so it is incapable of energizing or emitting radiation, and maintaining manufacturer's safe distance from the system while being repaired, serviced, operated, or tested.

Note: The requirements of this standard does not apply when a radar or communication system is incapable of emitting radiation at levels that could injure workers in the vicinity of the system, or if the radar or communication system is incapable of energizing in a manner than could injure workers working on or in the vicinity of the system.

Additional information can be found on the safety and health topics pages for [lockout/tagout](#) and [radiation, ionizing and non-ionizing](#).

Do you have lifeboats? Yes / No / Unsure

If yes, then you need to comply with the standard on [lifeboats](#). It provides the requirements for securing the lifeboat, use of chocks, and the hoisting or lowering of lifeboats without employees being inside them

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(unless during a test, drill or in an emergency).

Do employees service machinery, equipment or systems? Yes / No / Unsure

If yes, then you need to comply with the standard on [control of hazardous energy \(lockout/tags-plus\)](#) as it covers the servicing of machinery, equipment, and systems when the energization or startup of machinery, equipment, or systems, or the release of hazardous energy, could endanger an employee. It applies to the servicing of any machinery, equipment, or system that employees use in the course of shipyard employment work and that is conducted:

- *In any landside facility that performs shipyard employment work; and*
- *On any vessel or vessel section.*

This standard applies to such servicing conducted on a vessel by any employee including, but not limited to, the ship's officers and crew unless such application is preempted by the regulations of another federal agency.

***Note:** When other standards in 29 CFR part 1915 - [shipyard employment](#) and applicable standards in 29 CFR part 1910 - [general industry](#), require the use of a lock or tag, the employer shall use and supplement them with the procedural and training requirements specified in this standard.*

Exceptions: *This standard does not apply to:*

- *Work on cord-and-plug-connected machinery, equipment, or system, provided the employer ensures that the machinery, equipment, or system is unplugged and the plug is under the exclusive control of the employee performing the servicing;*
- *Minor servicing activities performed during normal production operations, including minor tool changes and adjustments, that are routine, repetitive, and integral to the use of the machinery, equipment, or system, provided the employer ensures that the work is performed using measures that provide effective protection from energization, startup, or the release of hazardous energy.*

It provides the requirements for a lockout/tags-plus program (i.e., written procedures, training, audits), general requirements, written procedures, (i.e., shutdown, isolation, applying lockout/tags-plus systems, verification of deenergization, testing, removal, startup, employee protection, coordination between employees, multi-employer), lockout/tags-plus materials, hardware, training, incident investigations, audits, and recordkeeping. [Appendix A](#) for this standard provides typical minimal lockout/tags-plus procedures.

Additional information can be found on the safety and health topics pages for [lockout/tagout](#), [machine guarding](#), and [electrical safety](#).

Are motor vehicles used at the worksite to transport employees, materials, or property?

Yes / No / Unsure

If yes, then you need to comply with the standard on [motor vehicle safety equipment, operation and maintenance](#). This standard applies to any motor vehicle used to transport employees, materials, or property at worksites engaged in shipyard employment. It does not apply to motor vehicle operation on public streets and highways. These standards apply to employer-provided motor vehicles, and in some cases, employee-provided motor vehicles. These standards provide the requirements for motor vehicle safety equipment (i.e., safety belts) and maintenance and operation (i.e., travel lanes, crosswalks, reflective vests, speed limits, bicycle use).

Do employees use powered industrial trucks? Yes / No / Unsure

If yes, then you need to comply with some portions of the standard on [motor vehicle safety equipment, operation and maintenance](#). It references that only the requirements related to motor vehicle safety equipment apply to powered industrial trucks and that additional requirements (i.e., maintenance, inspection, operation, training) that apply to powered industrial trucks that are used for shipyard employment are found in the general industry standard for [powered industrial trucks](#). *Note: The shipyard employment standard on [powered industrial truck operator training](#) also references [paragraph \(l\)](#) of the general industry standard for [powered industrial trucks](#).*

[Powered industrial trucks](#) includes fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines. It does not apply to compressed air or nonflammable compressed gas-operated industrial trucks, nor to farm vehicles, nor to vehicles intended primarily for earth moving or over-the-road hauling.

Additional information can be found on the safety and health topics page for [powered industrial trucks](#) (forklifts).

Do employees service multi-piece or single piece rim wheels? Yes / No / Unsure

If yes, then you need to comply with the standard on [servicing multi-piece and single-piece rim wheels](#). *Note: It references following the general industry standard requirements for [servicing multi-piece and single piece rim wheels](#) in shipyard employment.*

This standard applies to the servicing of multi-piece and single piece rim wheels used on large vehicles such as trucks, tractors, trailers, buses and off-road machines. It does not apply to the servicing of rim wheels used on automobiles, or on pickup trucks and vans utilizing automobile tires or truck tires designated "LT".

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Subpart G - Gear and Equipment for Rigging and Materials Handling

Does "Subpart G - Gear and Equipment for Rigging and Materials Handling" Apply to You?

Yes / No / Unsure If yes, please continue.

[Subpart G](#) provides standards related to gear and equipment used for rigging and materials handling. *Do employees use ropes, chains, and/or slings? Do employees use shackles and/or hooks? Do employees use chain falls and/or pull-lifts? Do employees use hoisting and/or hauling equipment (i.e., cranes, derricks, marine railways, mobile crawler or truck cranes used on a vessel)? Do employees use powered industrial trucks?* If you said yes to any of these questions, then this subpart applies to you. Proceed below for more information.

This subpart also provides general requirements pertaining to [inspections](#) (i.e., each shift, when necessary, removal of defective gear); [use of gear](#) (i.e., rigging, riding loads, signal codes, suspended loads, use of taglines, hatches), [qualifications of operators](#) (i.e., competent person, age requirements, signal codes, health), and [tables](#) (i.e., dimensions and spacing of wood independent-pole scaffold members, specifications for side rails of ladders, specifications for the construction of horses, safe center loads for scaffold plank of 1,100 pounds fibre stress, number and spacing of u-bolt wire rope clips, maximum allowable wear at any point of link).

Rigging gear - Shackles and hooks are rigging components used to attach loads and slings to lifting devices. These items along with ropes, chains, and slings make up the "rigging gear."

[Competent person](#) 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.

Learn more about the standards within Subpart G that have "[Special Requirements](#)" including programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

Additional information can be found on the safety and health topic page for [competent person](#) and [materials handling and storage](#).

Subpart G - Gear and Equipment for Rigging and Materials Handling

Do employees use ropes, chains and/or slings? Yes / No / Unsure

If yes, then you need to comply with the standard on [ropes, chains and slings](#). It applies to ship repairing, shipbuilding and shipbreaking and includes the requirements for the use of manila rope and manila-rope slings (i.e., markings, safe working loads), wire rope and wire-rope slings (i.e., markings, safe working

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loads), and chain and chain slings (i.e., markings, safe working loads, inspections, removal; when defective, knots/kinks).

Additional information can be found on the safety and health topics pages for [materials handling and storage](#), [slings](#) and [cranes and derricks](#).

Do employees use shackles and/or hooks? Yes / No / Unsure

If yes, then you need to comply with the standard on [shackles and hooks](#). It applies to ship repairing, shipbuilding and shipbreaking and includes the requirements for the use of shackles (i.e., markings, safe working loads) and hooks (i.e., certification record, safe working load, inspections, tests).

Additional information can be found on the safety and health topics pages for [materials handling and storage](#) and [cranes and derricks](#).

Do employees use chain falls and pull-lifts? Yes / No / Unsure

If yes, then you need to comply with the standard on [chain falls and pull-lifts](#). This standard applies to ship repairing, shipbuilding and shipbreaking and includes the requirements for marking capacity, inspections and other use criteria.

Chain falls and pull-lifts such as come-alongs are frequently used to move or lift heavy items.

Additional information can be found on the safety and health topics pages for [materials handling and storage](#) and [cranes and derricks](#).

Do employees use hoisting and/or hauling equipment? Yes / No / Unsure

If yes, then you need to comply with the standard on [hoisting and hauling equipment](#). It applies to ship repairing, shipbuilding and shipbreaking and includes the requirements for derrick and crane certification, guarding, mobile crawler or truck cranes used on a vessel, safe working loads and marine railways.

Hoisting and hauling equipment consists of mobile or stationary cranes and derricks and marine railway installations.

Additional information can be found on the safety and health topics pages for [materials handling and storage](#), [hoists](#) and [cranes and derricks](#).

Do employees use powered industrial trucks? Yes / No / Unsure

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

If yes, then you need to comply with the standard on [powered industrial truck operator training](#) which requires that you comply with [paragraph \(l\)](#) of the general industry standard for [powered industrial trucks](#).

In addition, you will need to comply with some portions of the standard on [motor vehicle safety equipment, operation and maintenance](#). It references that only the requirements related to motor vehicle safety equipment apply to powered industrial trucks and that additional requirements (i.e., maintenance, inspection, operation, training) that apply to powered industrial trucks that are used for shipyard employment are found in the general industry standard for [powered industrial trucks](#).

[Powered industrial trucks](#) includes fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines. It does not apply to compressed air or nonflammable compressed gas-operated industrial trucks, nor to farm vehicles, nor to vehicles intended primarily for earth moving or over-the-road hauling.

Additional information can be found on the safety and health topics page for [powered industrial trucks](#) (forklifts).

Subpart H - Tools and Related Equipment

Does "Subpart H - Tools and Related Equipment" Apply to You?

Yes / No / Unsure If yes, please continue.

[Subpart H](#) provides the standards for portable electric tools, hand tools, abrasive wheels, powder-actuated fastening tools, and internal combustion engines. *Do employees use portable electric tools? Do employees use hand tools? Do employees use abrasive wheels? Do employees use powder-actuated fastening tools? Do you have internal combustion engines (other than ship's equipment)?* If you answered yes to any of these questions, this subpart applies to you. Proceed with the questions below.

If this subpart applies to you, then you also need to comply with the standard on [general precautions](#). It provides requirements pertaining to hand lines, tool carriers, air tools, circular saws, guarding of machinery near docks, pneumatic tools, guarding drive mechanisms, manifolds and compressed air lines.

More information can be found on the safety and health topics pages for [machine guarding](#), [amputations](#), [hand and portable powered tools](#), and [compressed air and compressed air equipment](#).

Learn more about the standards within Subpart H that have "[Special Requirements](#)" including programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

Subpart H - Tools and Related Equipment

Do employees use portable electric tools? Yes / No / Unsure

If yes, then you need to comply with the standard on [portable electric tools](#). It provides requirements for grounded frames, grounding circuits, switches that have to be manually held in a closed position, and not using tools with frayed or worn cords.

More information can be found on the safety and health topics pages for [machine guarding](#), [hand and portable powered tools](#) and [electrical safety](#).

Do employees use hand tools? Yes / No / Unsure

If yes, then you need to comply with the standard on [hand tools](#). It provides requirements pertaining to not using unsafe hand tools, not using wrenches (i.e., crescent, pipe, end, socket wrenches) when jaws are sprung, impact tools (i.e., drift pins, wedges, chisels) kept free of mushroomed heads, and keeping wooden handles tight in the tool and keeping them free of splinters or cracks.

More information can be found on the safety and health topics pages for [hand and portable powered tools](#) and [amputations](#).

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Do employees use abrasive wheels? Yes / No / Unsure

If yes, then you need to comply with the standard on [abrasive wheels](#). It provides general requirements for floor stand and bench mounted abrasive wheels, floor and bench mounted grinders, using safety guards and safety flanges, inspections, maximum wheel speed, and use of eye protection.

Additional information can be found on the safety and health topics pages for [abrasive wheels](#), [machine guarding](#), [hand and portable powered tools](#), [amputations](#) and [personal protective equipment](#).

Do employees use powder-actuated fastening tools? Yes / No / Unsure

If yes, then you need to comply with the [powder actuated fastening tools](#). This standard applies to ship repairing and shipbuilding only. It includes general requirements (i.e., testing, guards, personal protective equipment) along with operator instructions.

Additional information can be found on the safety and health topics pages for [machine guarding](#), [hand and portable powered tools](#), [amputations](#), [competent person](#) and [personal protective equipment](#).

Do you have internal combustion engines (other than ship's equipment)?

If yes, then you need to comply with the standard on [internal combustion engines, other than ship's equipment](#). This standard applies to ship repairing, shipbuilding and shipbreaking and includes requirements for exhaust, exhaust line joints and connections, and tests for carbon monoxide by competent person.

Competent person 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 [confined and enclosed spaces and other dangerous atmospheres in shipyard employment](#), the competent person must also meet the additional requirements contained in the [competent person](#) standard (i.e., designation, skills, knowledge, recordkeeping).

Additional information can be found on the safety and health topic page for [competent person](#) and [confined spaces](#).

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Subpart I - Personal Protective Equipment

Does "Subpart I - Personal Protective Equipment" Apply to You?

Yes / No / Unsure If yes, please continue.

[Subpart I](#) provides the standards for eye and face protection, respiratory protection, head protection, foot protection, hand and body protection, lifesaving equipment, personal fall arrest systems, and positioning devices. *Do you have hazards involving processes or the environment, chemical hazards, radiological hazards, or mechanical irritants that are capable of causing injury or impairment to any part of the body through absorption, inhalation or physical contact? Do employees work near or on the water? Are employees exposed to fall hazards?* If yes, then you need to comply with all or sections of subpart I.

The standard on the [scope, application and definitions](#) states that this subpart applies to all work in shipyard employment regardless of geographic location. It also provides key definitions:

[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.

This subpart also provides the [general requirements](#) standard which covers all personal protective equipment (PPE). According to this standard, the employer shall provide and ensure that each affected employee uses the appropriate PPE for the eyes, face, head, extremities, torso, and respiratory system, including protective clothing, protective shields, protective barriers, personal fall protection equipment, and lifesaving equipment, wherever employees are exposed to work activity hazards that require the use of PPE. To identify what the hazards are and what PPE is required to protect employees from them, this standard requires that the employer conduct a PPE [hazard assessment](#). Once completed, you will know which PPE standards you need to comply with in addition to the general requirements standard.

This standard also requires training employees on the use, care, limitations and when PPE is necessary. It also covers the payment criteria for PPE. The following appendices apply to this subpart: [appendix A](#) pertains to non-mandatory guidelines for hazard assessment, personal protective equipment (PPE) selection, and PPE training program and [appendix B](#) provides the general testing conditions and additional guidelines for personal fall protection systems.

Learn more about the standards within Subpart I that have "[Special Requirements](#)" including programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

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Additional information on PPE can be found on the safety and health topics pages for [personal protective equipment](#), [respiratory protection](#), and [fall protection](#). Also reference [CPL 02-01-060](#) - Enforcement Guidance for Personal Protective Equipment in Shipyard Employment.

Subpart I - Personal Protective Equipment

Do employees need eye and face protection? Yes / No / Unsure

Based on your PPE hazard assessment, are employees exposed to eye or face hazards where there are exposures to eye or face hazards caused by flying particles, molten metal, liquid chemicals, acid or caustic liquids, chemical gases or vapors, or potentially injurious light radiation? If yes, then you need to comply with the [eye and face protection](#) standard. It provides general requirements (i.e., corrective lenses, filter lenses) and criteria for protective eye and face protection (i.e., consensus standards).

Additional information can be found on the safety and health topics page for [personal protective equipment](#), [organic solvents](#) and [radiation, ionizing and non-ionizing](#).

Do you have air contaminants? Yes / No / Unsure

This standard applies when breathing air is contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors which can cause occupational diseases. *Do you have harmful air contaminants?* **Note:** To answer this question, you may need to review safety data sheets, labels, conduct air monitoring, or gather other relevant data that can provide you with useful information regarding the hazards for the contaminant.

If the answer is yes, you may need to comply with the [respiratory protection](#) standard. **Note:** An employer should evaluate the use of engineering and administrative controls to minimize air contaminant exposures. If exposure levels are above the [permissible exposure limits \(PELs\)](#), (or in the absence of a PEL, another recommended level), then respirators must be provided and used in accordance with an effective respiratory protection program.

This standard applies to [shipyards](#) (part 1915), [marine terminals](#) (part 1917), [longshoring](#) (part 1918), [general industry](#) (part 1910), and [construction](#) (part 1926).

Note: *Voluntary Users of Respirators - [paragraph \(c\)\(2\)\(i\)](#); An employer may provide respirators at the request of employees or permit employees to use their own respirators, if the employer determines that respirator use will not in itself create a hazard. If the employer determines that voluntary respirator use is permissible, they shall provide the information contained in [Appendix D](#) to the employee. In addition, the employer must establish and implement those elements of a written respiratory protection program necessary to ensure that any employee using a respirator voluntarily is medically able to use that respirator, and that the respirator is cleaned, stored, and maintained so that its use does not present a health hazard to the user.*

Exception: *Employers are not required to include in a written respiratory protection program those employees whose only use of respirators involves the voluntary use of filtering facepieces (dust masks).*

Additional information can be found on the safety and health topics pages for [respiratory protection](#), [organic solvents](#), [employee exposure and medical records](#) and [flammable liquids](#).

Do employees need head protection? Yes / No / Unsure

If based on your PPE hazard assessment, employees are exposed to head injury from falling objects or when they work near exposed electrical conductors which could contact the head, then you need to comply with the [head protection](#) standard. It provides general head protection requirements along with criteria for protective devices (i.e., consensus standards).

Additional information can be found on the safety and health topics pages for [personal protective equipment](#) and [electrical safety](#). The [NCDOL Library](#) is also available for assistance regarding access to consensus standards (i.e., ANSI, ASME, NFPA).

Do employees need foot protection? Yes / No / Unsure

If based on your PPE hazard assessment, employees are working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, or when the use of protective footwear will protect the affected employee from an electrical hazard, such as a static-discharge or electric-shock hazard, that remains after the employer takes other necessary protective measures, then you need to comply with the [foot protection](#) standard. It provides general foot protection requirements along with criteria for protective footwear (i.e., consensus standards).

Additional information can be found on the safety and health topics page for [personal protective equipment](#) and [electrical safety](#). The [NCDOL Library](#) is also available for assistance regarding access to consensus standards (i.e., ANSI, ASME, NFPA).

Do employees need hand and body protection? Yes / No / Unsure

If based on your PPE hazard assessment, employees' hands and/or body are exposed to hazards such as skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, punctures, chemical burns, thermal burns, harmful temperature extremes, and sharp objects, then you need to comply with the [hand and body protection](#) standard. It provides requirements pertaining to hot work operations and electrical protective devices.

Additional information can be found on the safety and health topics pages for [personal protective equipment](#) and [electrical safety](#).

Do employees work near or on the water? Yes / No / Unsure

If yes, then you need to comply with the standard on [lifesaving equipment](#). It provides the requirements personal floatation devices, ring life buoys and ladders.

Additional information can be found on the safety and health topics page for [personal protective equipment](#).

Are employees exposed to fall hazards? Yes / No / Unsure

If yes, then you need to comply with the standard on [personal fall arrest systems](#) (PFAS). It provides the criteria for connections and anchorages; lifelines, lanyards, and personal fall arrest systems; selection, use and care of systems and system components; and training. If positioning device systems are used, you will also need to comply with the standard on [positioning device systems](#). This standard provides criteria for connectors and anchorages, positioning device systems (i.e., window cleaners), use and care of positioning device systems, and training.

[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.

[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.

[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.

Additional information can be found on the safety and health topics page for [fall protection](#) and [fall prevention](#).

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Subpart J - Ship's Machinery and Piping Systems

Does "Subpart J - Ship's Machinery and Piping Systems" Apply to You?

Yes / No / Unsure If yes, please continue.

[Subpart J](#) provides the requirements for ship's boilers, piping systems, propulsion machinery and deck machinery. According to [scope and application of subpart](#), it applies to ship repairing and shipbuilding but not to shipbreaking. *Do employees conduct ship repairing operations related to boilers, piping systems, propulsion machinery and/or deck machinery? Do employees conduct shipbuilding operations related to boilers, piping systems, propulsion machinery and/or deck machinery?* If you said yes to either question, then this subpart applies to you.

Learn more about the standards within Subpart J that have "[Special Requirements](#)" including programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

Subpart J - Ship's Machinery and Piping Systems

Do employees work on boilers? Yes / No / Unsure

If yes, then you need to comply with the standard on [ship's boilers](#). This standard applies to ship repairing and shipbuilding but not to shipbreaking. It provides the requirements for protecting employees performing work in the fire, steam, or water spaces of a boiler where employees may be subject to injury from the direct escape of a high temperature medium such as steam, or water, oil, or other medium at a high temperature entering from an interconnecting system. These include locking and tagging of valves, draining connections, and posting warning signs while work is being done. It also requires that you comply with the standard on [control of hazardous energy \(lockout/tags-plus\)](#) when locking and tagging.

More information can be found on the safety and health topics page for [lockout/tagout](#).

Do employees work on piping systems? Yes / No / Unsure

If yes, then you need to comply with the standard on [ship's piping systems](#). This standard applies to ship repairing and shipbuilding but not to shipbreaking. It provides the requirements for protecting employees (i.e., locking and tagging, drain connections) performing work on a valve, fitting, or section of piping in a piping system where employees may be subject to injury from the direct escape of steam, or water, oil, or other medium at a high temperature. It also requires that you comply with the standard on [control of hazardous energy \(lockout/tags-plus\)](#) when locking and tagging.

More information can be found on the safety and health topics page for [lockout/tagout](#).

Do employees work on propulsion machinery? Yes / No / Unsure

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

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If yes, then you need to comply with the standard on [ship's propulsion machinery](#). This standard applies to ship repairing and shipbuilding but not to shipbreaking. It provides the safety measures for work being performed on the main engine, reduction gear, or connecting accessories. It includes engaging the jacking gear to prevent the main engine from turning over, posting warning signs, locking and tagging valves or circuits to the jacking gear, and ensuring employees, equipment, and tools are clear of engine, reduction gear, connecting accessories and propeller before turning engine over. It also requires that you comply with the standard on [control of hazardous energy \(lockout/tags-plus\)](#) when locking and tagging.

More information can be found on the A-Z safety and health topics page for [lockout/tagout](#).

Do employees work on deck machinery? Yes / No / Unsure

If yes, then you need to comply with the standard on [ship's deck machinery](#). This standard applies to ship repairing and shipbuilding but not to shipbreaking. It provides the safety measures for work performed on the anchor windlass or any of its attached accessories.

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Subpart K - Portable, Unfired Pressure Vessels, Drums and Containers, Other Than Ship's Equipment

Does "Subpart K - Portable, Unfired Pressure Vessels, Drums and Containers, Other Than Ship's Equipment" Apply to You? Yes / No / Unsure If yes, please continue.

[Subpart K](#) provides the standards for portable air receivers, and other unfired pressure vessels, drums and containers. According to [scope and application](#) of this subpart, these standards apply to ship repairing and shipbuilding but not to shipbreaking.

Do you have portable air receivers and/or other unfired pressure vessels? Do you have drums and/or containers? If you said yes to either question, proceed below for more information.

Learn more about the standards within Subpart K that have "[Special Requirements](#)" including programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

Subpart K - Portable, Unfired Pressure Vessels, Drums and Containers, Other Than Ship's Equipment

Do you have portable air receivers or other unfired pressure vessels? Yes / No / Unsure

If yes, then you need to comply with the standard on [portable air receivers and other unfired pressure vessels](#). This standard provides requirements for unfired pressure vessels to be marked and meet design and construction standards of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code. It also provides requirements for safe working pressures, a certification record of examinations and tests, and quarterly examinations by competent person. Also reference [drums and containers](#) for more requirements pertaining to pressure vessels that contain toxic or flammable liquids or gases.

[Competent person](#) 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.

Related information can be found on the safety and health topics page for [compressed air and compressed air equipment](#) and [competent person](#).

Do you have drums or containers? Yes / No / Unsure

If yes, then you need to comply with the standard on [drums and containers](#). It provides the requirements for pressure vessels, containers and drums that contain toxic or flammable liquids or gases, having fire extinguishers available, and relief valves for temporarily assembled piping systems that contain hazardous liquids or gases.

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Additional information can be found on the safety and health topics page for [flammable liquids](#).

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Subpart L - Electrical Machinery

Does "Subpart L - Electrical Machinery" Apply to You? Yes / No / Unsure If yes, please continue.

[Subpart L](#) provides the standard on electrical circuits and distribution boards. This standard applies to ship repairing and shipbuilding but not to shipbreaking. *Do employees work on electrical circuits or distribution boards?* If yes, then you need to comply with the standard on [electrical circuits and distribution boards](#). It provides the requirements for de-energizing circuits, lockout/tagout, and preventing contact with energized parts. Also reference the standard on [control of hazardous energy \(lockout/tags-plus\)](#).

Learn more about the standards within Subpart L that have "[Special Requirements](#)" including programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

Related information can be found on the safety and health topics pages for [electrical safety](#) and [lockout/tagout](#).

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Subpart P - Fire Protection in Shipyard Employment

Does "Subpart P - Fire Protection in Shipyard Employment" Apply to You?

Yes / No / Unsure If yes, please continue.

[Subpart P](#) covers employees engaged in shipyard employment aboard vessels and vessel sections, and on land-side operations regardless of geographic location and requires employers to protect all employees from fire hazards in shipyard employment, including employees engaged in fire response activities. It provides the standards for fire protection including fire safety plans, hot work precautions, fire watches, fire response, hazards of fire extinguishing systems, land-side fire protection systems, and training.

Do you have employees that are engaged in shipyard employment aboard vessels and vessel sections, and on land-side operations? If yes, then this subpart applies to you. The standard on [general provisions](#) provides the scope of the subpart along with the requirements for employee participation and multi-employer worksites. The standard requires a written [fire safety plan](#) that includes the identification of significant fire hazards, procedures for employees, reviewing plan with employees, keeping plan accessible, conducting plan reviews, and fire safety plans for contract employees. A model fire safety plan is provided in [appendix A](#).

This subpart also provides the standard on [training](#) which includes requirements for providing training on emergency alarm signals, primary and secondary evacuation routes, and additional training requirements for employees that are expected to fight incipient stage fires, fire response employees, employees providing fire watch duty, and maintaining records. It also provides [definitions applicable to this subpart](#) including:

[Fire watch](#) - The activity of observing and responding to the fire hazards associated with hot work in shipyard employment and the employees designated to do so.

[Fire response](#) - 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](#) - A shipyard employee who carries out the duties and responsibilities of shipyard firefighting in accordance with the fire safety plan.

[Incipient stage fire](#) - 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.

Learn more about the standards within Subpart P that have "[Special Requirements](#)" including programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

Additional related information can be found on the topics pages for [fire prevention plans](#), [fire protection and prevention](#), [employee alarm system](#) and [exits and exit routes](#).

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Do employees conduct hot work? Do employees provide fire response and/or does an outside organization? Do you have fixed extinguishing systems? Do you have fixed or portable fire protection systems? If you said yes to any of these questions, proceed below to see if they apply to you.

Subpart P - Fire Protection in Shipyard Employment

Do employees conduct hot work? Yes / No / Unsure

If yes, then you need to comply with the standard on [precautions for hot work](#). It includes requirements for designated and non-designated areas and specific requirements related to maintaining fire hazard-free conditions, work in confined spaces, and fuel gas and oxygen supply lines. You must also comply with the standard on [fire watches](#) for any hot work being conducted. It provides requirements for having a written fire watch policy, training employees on personal protective equipment, performance of duties, and equipment to be used (also reference the standard on [training](#)), posting fire watches, and assigning employees to fire watch duty.

Additional related information can be found on the topics pages for [welding and cutting](#), [personal protective equipment](#), [fire protection and prevention](#) and [confined spaces](#).

Do employees provide fire response and/or does an outside organization? Yes / No / Unsure

Do your employees provide fire response? If yes, then you need to comply with the standard on [fire response](#), except [paragraph \(b\)\(2\) - outside fire response](#) and [paragraph \(b\)\(3\) - a combination of internal and outside fire response](#). This standard provides the requirements for deciding the type of response to fires (i.e., internal, external, combination), and creating, maintaining and updating a written policy. The policy must include structure of fire response organization, number of trained personnel, fire response functions, standard operating procedures for internal fire response, and use of personal protective equipment.

In addition, the policy must include employee evacuation, rescue and emergency response, medical requirements for shipyard fire response employees (also reference the standard on [access to employee exposure and medical records](#)), fire response functions, personal protective clothing and equipment (also reference the standard on [respiratory protection](#)), and equipment maintenance. It also references National Fire Protection Association consensus standards which are [incorporated by reference](#).

Does an outside organization provide fire response? If yes, then your written policy must also include the elements listed in [paragraph \(b\)\(2\) - outside fire response](#), which includes fire suppression incidents that they will respond to, procedures to request their assistance, familiarizing outside organization with your facility and layout.

Do both employees and an outside organization provide fire response? If yes, then the elements listed in [paragraph \(b\)\(2\) - outside fire response](#) and [paragraph \(b\)\(3\) - a combination of internal and outside fire response](#) must be included in your policy. [Paragraph \(b\)\(3\)](#) includes type, amount and frequency of joint training.

[Emergency operations](#) - 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.

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Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Fire response employee - A shipyard employee who carries out the duties and responsibilities of shipyard firefighting in accordance with the fire safety plan.

Fire response organization - 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.

Rescue - 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.

Additional assistance with consensus standards can be obtained by contacting the [NCDOL Library](#). Also reference the safety and health topic pages for [portable fire extinguishers](#), [fire protection and prevention](#) and [emergency response](#).

Do you have fixed extinguishing systems? Yes / No / Unsure

If yes, are employees exposed to fixed extinguishing systems that could create a dangerous atmosphere when activated in vessels and vessel sections (regardless of geographic location)? If yes, then you need to comply with the standard on [hazards of fixed extinguishing systems on board vessels and vessel sections](#). It provides requirements for automatic and manual systems, sea and dock trials, doors and hatches, testing the system, conducting system maintenance, and using fixed manual extinguishing systems for fire protection.

Fixed extinguishing system - A permanently installed fire protection system that either extinguishes or controls fire occurring in the space it protects.

Fire protection - Methods of providing fire prevention, response, detection, control, extinguishment, and engineering.

Also reference the safety and health topic for [fire protection and prevention](#).

Do you have fixed or portable fire protection systems? Yes / No / Unsure

If yes, are they needed to meet an OSHA standard for employee safety or employee protection from fire hazards in land- side facilities, including, but not limited to, buildings, structures, and equipment? If yes, then you need to comply with the standard on [land-side fire protection systems](#). It provides the requirements for portable fire extinguishers and hose systems, and for fixed extinguishing systems. It also references National Fire Protection Association consensus standards which are [incorporated by reference](#).

Hose systems - 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.

Fixed extinguishing system - A permanently installed fire protection system that either extinguishes or controls fire occurring in the space it protects.

Also reference the safety and health topic for [fire protection and prevention](#).

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Subpart Z - Toxic and Hazardous Substances

Does "Subpart Z - Toxic and Hazardous Substances" Apply to You?

Yes / No / Unsure If yes, please continue.

[Subpart Z](#) provides requirements relating to employee exposures to air contaminants and the following health hazards: asbestos, coal tar pitch volatiles, 13 carcinogens (e.g., 4-Nitrobiphenyl, alpha-Naphthylamine, chloromethyl ether, 3,3'-Dichlorobenzidine (and its salts), bis-Chloromethyl ether, beta-Naphthylamine, Benzidine, 4-Aminodiphenyl, Ethyleneimine, beta-Propiolactone, 2-Acetylaminofluorene, 4-Dimethylaminoazobenzene, and N-Nitrosodimethylamine), vinyl chloride, inorganic arsenic, beryllium, lead, chromium (VI), cadmium, benzene, 1,2-dibromo-3-chloropropane, methylenedianiline, respirable crystalline silica, ethylene oxide, methylene chloride, formaldehyde, bloodborne pathogens, acrylonitrile, hazard communication, and chemical hazards in laboratories. It also provides requirements pertaining to employee medical and exposure records.

Do you have air contaminants? Do you have any of the 13 carcinogens? Do you have any of the health hazards listed above (i.e., asbestos, lead, cadmium, bloodborne pathogens)? Do you conduct medical surveillance or exposure monitoring (most health standards require them)? Do you have employees that may be exposed to any chemical under normal conditions or in foreseeable emergencies? Do you have employers engaged in laboratory use of hazardous chemicals?

If you answered yes to any of the questions above, please proceed below for more information.

Learn more about the standards within Subpart Z that have "[Special Requirements](#)" including programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

Additional information can be found on the safety and health topic pages for [chemical hazards and toxic substances](#), [employee exposure and medical records](#) and OSHA's [Chemical Database](#).

Subpart Z - Toxic and Hazardous Substances

Do you have air contaminants? Yes / No / Unsure

If yes, you need to comply with the standard on [air contaminants](#). This standard provides explanations regarding ceiling values, time-weighted averages, computation formulae along with a list of chemicals and their exposure limits.

[Time weighted average \(TWA\) permissible exposure limit \(PEL\)](#) is the employee's average airborne exposure in any 8-hour work shift of a 40-hour work week which shall not be exceeded.

Short term exposure limit (STEL) is a 15-minute TWA exposure that should not be exceeded at any time during a workday.

[Ceiling limits \(C\)](#) are limits which should never be exceeded, even instantaneously.

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

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Additional information can be found on the safety and health topics pages for [chemical hazards and toxic substances](#), [organic solvents](#), [personal protective equipment](#), [hazard communication](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#).

Do your employees have occupational exposure to asbestos? Yes / No / Unsure

If yes, then you need to comply with the [asbestos](#) standard as it applies to all occupational exposures to asbestos in shipyard employment. This includes but is not limited to the following:

- *Demolition or salvage of structures, vessels, and vessel sections where asbestos is present;*
- *Removal or encapsulation of materials containing asbestos;*
- *Construction, alteration, repair, maintenance, or renovation of vessels, vessel sections, structures, substrates, or portions thereof, that contain asbestos;*
- *Installation of products containing asbestos;*
- *Asbestos spill/emergency cleanup; and*
- *Transportation, disposal, storage, containment of and housekeeping activities involving asbestos or products containing asbestos, on the site or location at which construction activities are performed.*

This standard provides the permissible exposure limit (PEL) and requirements pertaining to exposure monitoring and assessments, multi-employer worksites, regulated areas, methods of compliance (i.e., engineering controls, work practice controls), respirator program (reference the general industry standard for [respiratory protection](#)), protective clothing, hygiene facilities and practices (reference the general industry standard for [sanitation](#)), hazard communication program (reference the general industry standard for [hazard communication](#)), signs and labels, employee information and training, housekeeping, medical surveillance, recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)), qualified person, and mandatory and non-mandatory appendices (reference below). It also provides the definitions such as:

Asbestos includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that have been chemically treated and/or altered.

Asbestos-containing material (ACM) means any material containing more than 1% asbestos.

PACM means presumed asbestos containing material.

The appendices for this standard are as follows: [appendix A](#) provides the procedure for analyzing air samples for asbestos and specifies quality control procedures that must be implemented by laboratories performing the analysis; [appendix B](#) provides detailed procedures for asbestos sampling and analysis; [appendix C](#) provides qualitative and quantitative fit testing procedures; [appendix D](#) provides the medical questionnaires; [appendix E](#) provides the interpretation and classification of chest roentgenograms; [appendix F](#) provides work practices and engineering controls for Class 1 asbestos operations; [appendix H](#) provides substance technical information for asbestos; [appendix I](#) provides medical surveillance guidelines for asbestos; [appendix J](#) provides the smoking cessation program information for asbestos; [appendix K](#) pertains to polarized light microscopy of asbestos; and [appendix L](#) provides work practices and engineering controls for automotive brake and clutch inspection, disassembly, repair and assembly.

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Related information can be found on the safety and health topics pages for [asbestos](#), [personal protective equipment](#), [hazard communication](#), [hierarchy of controls](#), [competent person](#), [employee exposure and medical records](#) and [respiratory protection](#). Also reference [CPL 02-02-063 - Inspection Procedures for Occupational Exposure to Asbestos Final Rule 29 CFR Parts 1910.1001, 1926.1101, and 1915.1001](#).

Do you have employees that have occupational exposure to coal tar pitch volatiles?

Yes / No / Unsure

If yes, then you need to comply with the general industry standard on [coal tar pitch volatiles; interpretation of term](#). It states "As used in 1910.1000 ([Table Z-1](#)), coal tar pitch volatiles include the fused polycyclic hydrocarbons which volatilize from the distillation residues of coal, petroleum (excluding asphalt), wood, and other organic matter. Asphalt (CAS 8052-42-4, and CAS 64742-93-4) is not covered under the "coal tar pitch volatiles" standard."

Note: The requirements applicable to shipyard employment are identical to the general industry standard for [coal tar pitch volatiles; Interpretation of term](#).

Do your employees have occupational exposure to one of the 13 carcinogens? Yes / No / Unsure

The 13 carcinogens include the following:

1. [4-Nitrobiphenyl](#);
2. [alpha-Naphthylamine](#);
3. [methyl chloromethyl ether](#);
4. [3,3'-Dichlorobenzidine \(and its salts\)](#);
5. [bis-Chloromethyl ether](#);
6. [beta-Naphthylamine](#);
7. [Benzidine](#);
8. [4-Aminodiphenyl](#);
9. [Ethyleneimine](#);
10. [beta-Propiolactone](#);
11. [2-Acetylaminofluorene](#);
12. [4-Dimethylaminoazo-benzene](#); and
13. [N-Nitrosodimethylamine](#).

Do you have one of the chemicals listed above? If yes, then you need to comply with the standard on [13 carcinogens](#). It applies to any area in which the 13 carcinogens are manufactured, processed, repackaged, released, handled, or stored, but does not apply to transshipment in sealed containers, except for the labeling requirements.

The 13 carcinogens standard does not apply to the following:

- *Solid or liquid mixtures containing less than 0.1 percent by weight or volume of 4-Nitrobiphenyl; methyl chloromethyl ether; bis-chloromethyl ether; beta-Naphthylamine; benzidine or 4-Aminodiphenyl; and*

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

- *Solid or liquid mixtures containing less than 1.0 percent by weight or volume of alpha-Naphthylamine; 3,3'-Dichlorobenzidine (and its salts); Ethyleneimine; beta-Propiolactone; 2-Acetylaminofluorene; 4-Dimethylaminoazobenzene, or N-Nitrosodimethylamine.*

This standard provides the requirements for regulated areas, respirator program (reference the general industry standard on [respiratory protection](#)), contamination control, medical surveillance, hygiene facilities and practices (reference the general industry standard for [sanitation](#)), hazard communication program (reference the general industry standard for [hazard communication](#)), signs and labels, training and education, and records (reference the general industry standard on [access to employee exposure and medical records](#)). *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [13 carcinogens](#).*

This standard also provides definitions such as:

[Authorized employee](#) means an employee whose duties require him to be in the regulated area and who has been specifically assigned by the employer.

[Regulated area](#) means an area where entry and exit is restricted and controlled.

Additional related information can be found on the safety and health topic pages for [personal protective equipment](#), [eyewash stations and emergency showers](#), [hazard communication](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#).

Do your employees have occupational exposure to vinyl chloride? Yes / No / Unsure

If yes, then you need to comply with the standard on [vinyl chloride](#) as it provides the requirements for the control of employee exposure to vinyl chloride (chloroethene). It applies to the manufacture, reaction, packaging, repackaging, storage, handling or use of vinyl chloride or polyvinyl chloride, but does not apply to the handling or use of fabricated products made of polyvinyl chloride. The standard also applies to the transportation of vinyl chloride or polyvinyl chloride except to the extent that the Department of Transportation may regulate them.

This standard provides the permissible exposure limit (PEL) along with requirements for exposure monitoring and assessment, regulated areas, methods of compliance (i.e., engineering controls, work practice controls, personal protective controls), respirator program (reference the general industry standard on [respiratory protection](#)), hazardous operations, emergency situations, training, medical surveillance, hazard communication program (reference the general industry standard on [hazard communication](#)), signs and labels, and records (reference the general industry standard on [access to employee exposure and medical records](#)). *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [vinyl chloride](#).*

[Appendix A](#) provides supplemental medical information for vinyl chloride. This standard also provides definitions such as:

[Vinyl chloride](#) means vinyl chloride monomer.

[Action level](#) means a concentration of vinyl chloride of 0.5 ppm averaged over an 8-hour work day.

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Hazardous operation means any operation, procedure, or activity where a release of either vinyl chloride liquid or gas might be expected as a consequence of the operation or because of an accident in the operation, which would result in an employee exposure in excess of the permissible exposure limit.

Related information can be found on the safety and health topic pages for [personal protective equipment](#), [hazard communication](#), [eyewash stations and emergency showers](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#).

Do your employees have occupational exposure to inorganic arsenic? Yes / No / Unsure

If yes, then you need to comply with the [inorganic arsenic](#) standard as it applies to all occupational exposures to inorganic arsenic. This standard does not apply to employee exposures in agriculture or resulting from pesticide application, the treatment of wood with preservatives or the utilization of arsenically preserved wood.

This standard provides the permissible exposure limit along with requirements for exposure monitoring, regulated areas, methods of compliance (i.e., engineering controls, work practice controls, written compliance plan), respirator program (reference the general industry standard on [respiratory protection](#)), protective work clothing and equipment (reference the general industry standard on [eye and face protection](#)), signs and labels, hygiene facilities and practices (reference the general industry standard on [sanitation](#)), hazard communication program (reference the general industry standard on [hazard communication](#) standard), medical surveillance, information and training, and recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [inorganic arsenic](#).*

The appendices for this standard are as follows: [appendix A](#) provides the inorganic arsenic substance information sheet; [appendix B](#) provides the substance technical guidelines; and [appendix C](#) provides medical surveillance guidelines. This standard also provides definitions such as:

Inorganic arsenic means copper aceto-arsenite and all inorganic compounds containing arsenic except arsine, measured as arsenic (As).

Action level means a concentration of inorganic arsenic of 5 micrograms per cubic meter of air (5 ug/m³) averaged over any eight (8) hour period.

Related information can be found on the safety and health topic pages for [personal protective equipment](#), [hazard communication](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#).

Do your employees have occupational exposure to beryllium? Yes / No / Unsure

If yes, you need to comply with the standard on [beryllium](#) as it applies to occupational exposure to beryllium in all forms, compounds, and mixtures in general industry. It does not apply to:

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

- *This standard does not apply to articles (as defined below in the [hazard communication](#) general industry standard) that contain beryllium and that the employer does not process.*
- *This standard does not apply to materials containing less than 0.1% beryllium by weight where the employer has objective data demonstrating that employee exposure to beryllium will remain below the action level as an 8-hour TWA under any foreseeable conditions.*

This standard provides the permissible exposure limit (PEL) and requirements for exposure assessments, exposure monitoring, regulated areas, methods of compliance (i.e., written exposure control plan, engineering controls, work practice controls), respirator program (reference the [respiratory protection](#) general industry standard), protective work clothing and equipment (reference the subpart on [personal protective equipment](#)), signs and labels, hygiene areas and practices (reference the [sanitation](#) standard), hazard communication program (reference the [hazard communication](#) general industry standard), housekeeping, medical surveillance, medical removal, training, and recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). This standard also provides definitions such as:

[Action level](#) means a concentration of airborne beryllium of 0.1 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$) calculated as an 8-hour time-weighted average (TWA).

[Emergency](#) means any uncontrolled release of airborne beryllium.

[High-efficiency particulate air \(HEPA\) filter](#) means a filter that is at least 99.97 percent efficient in removing particles 0.3 micrometers in diameter.

Additional information can be found on the safety and health topics pages for [beryllium](#), [personal protective equipment](#), [hazard communication](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#). In addition, occupational exposure to beryllium falls within the OSH Division [health hazards special emphasis program](#).

Do your employees have occupational exposure to lead? Yes / No / Unsure

If yes, then you need to comply with the [lead](#) standard as it applies to all occupational exposure to lead, except in the [construction industry](#) or to agricultural operations covered by the [agriculture standards](#). This standard provides the permissible exposure limit (PEL) along with requirements for exposure monitoring, methods of compliance (i.e., engineering controls, work practice controls, written compliance program) respirator program (reference the [respiratory protection](#) general industry standard), protective work clothing and equipment (reference the general industry standard on [eye and face protection](#)), housekeeping, signs and labels, hygiene facilities and practices (reference the [sanitation](#) general industry standard), hazard communication program (reference the [hazard communication](#) standard), medical removal protection, medical surveillance, information and training, and recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [lead](#).*

The appendices for lead are as follows: [appendix A](#) provides the substance data sheet for occupational exposure; [appendix B](#) provides the employee standard summary; and [appendix C](#) provides the medical surveillance guidelines. This standard also provides definitions including:

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Action level means employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air (30 $\mu\text{g}/\text{m}^3$) averaged over an 8-hour period.

Lead means metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds.

Additional information can be found on the safety and health topics page for [lead](#), [personal protective equipment](#), [hazard communication](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#). In addition, occupational exposure to lead falls within the OSH Division [health hazards special emphasis program](#).

Do your employees have occupational exposure to chromium (VI)? Yes / No / Unsure

If yes, you need to comply with the [chromium \(VI\)](#) standard. It applies to occupational exposures to chromium (VI) in all forms and compounds in general industry, except:

- *Exposures that occur in the application of pesticides regulated by the Environmental Protection Agency or another Federal government agency (e.g., the treatment of wood with preservatives);*
- *Exposures to portland cement; or*
- *Where the employer has objective data demonstrating that a material containing chromium or a specific process, operation, or activity involving chromium cannot release dusts, fumes, or mists of chromium (VI) in concentrations at or above 0.5 $\mu\text{g}/\text{m}^3$ as an 8-hour time-weighted average (TWA) under any expected conditions of use.*

This standard provides requirements pertaining to permissible exposure limits, exposure determination, methods of compliance (i.e., engineering controls, work practice controls), respirator program (reference the [respiratory protection](#) general industry standard), housekeeping, protective work clothing and equipment, hygiene facilities and practices (reference the [sanitation](#) general industry standard and the shipyard employment [sanitation](#) standard), hazard communication program (reference the [hazard communication](#) general industry standard), medical surveillance, employee information and training, and recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). Definitions for this standard include:

Action level means a concentration of airborne chromium (VI) of 2.5 micrograms per cubic meter of air (2.5 $\mu\text{g}/\text{m}^3$) calculated as an 8-hour time-weighted average (TWA).

Chromium (VI) [hexavalent chromium or Cr(VI)] means chromium with a valence of positive six, in any form and in any compound.

Emergency means any occurrence that results, or is likely to result, in an uncontrolled release of chromium (VI). If an incidental release of chromium (VI) can be controlled at the time of release by employees in the immediate release area, or by maintenance personnel, it is not an emergency.

Employee exposure means the exposure to airborne chromium (VI) that would occur if the employee were not using a respirator.

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Additional information can be found on the safety and health topics pages for [chromium VI](#), [personal protective equipment](#), [hazard communication](#), [eyewash stations and emergency showers](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#). In addition, occupational exposure to hexavalent chromium falls within the OSH Division [health hazards special emphasis program](#). Also reference [CPL 02-02-074](#) - Inspection Procedures for the Chromium (VI) Standards and [OPN 135, Special Emphasis Programs for Health Hazards](#).

Do your employees have occupational exposure to cadmium? Yes / No / Unsure

If yes, then you need to comply with the [cadmium](#) standard. It applies to all occupational exposures to cadmium and cadmium compounds, in all forms, and in all industries covered by the Occupational Safety and Health Act, except the [construction-related industries](#). This standard provides the permissible exposure limit (PEL) and the requirements for exposure monitoring, regulated areas, methods of compliance (i.e., engineering controls, work practice controls, written compliance program), respirator program (reference the [respiratory protection](#) general industry standard), protective work clothing and equipment (reference the general industry standard on [eye and face protection](#)), hygiene facilities and practices (reference the [sanitation](#) general industry standard), hazard communication program (reference the [hazard communication](#) general industry standard), housekeeping, signs and labels, medical surveillance, employee information and training, recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [cadmium](#).*

The appendices for cadmium are as follows: [appendix A](#) provides the substance safety data sheet; [appendix B](#) provides the substances technical guidelines for cadmium; [appendix D](#) pertaining to occupational health history interview with reference to cadmium exposure; [appendix E](#) provides cadmium in workplace atmospheres; and [appendix F](#) pertains to nonmandatory protocol for biological monitoring.

This standard also provides definitions such as:

Action level (AL) is defined as an airborne concentration of cadmium of 2.5 micrograms per cubic meter of air (2.5 ug/m³), calculated as an 8-hour time-weighted average (TWA).

High-efficiency particulate air (HEPA) filter means a filter capable of trapping and retaining at least 99.97 percent of mono-dispersed particles of 0.3 micrometers in diameter.

Additional related information can be found on the safety and health topic pages for [personal protective equipment](#), [hazard communication](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#).

Do your employees have occupational exposure to benzene? Yes / No / Unsure

If yes, then you need to comply with the standard on [benzene](#) as it applies to all occupational exposures to benzene. This standard does not apply to:

- *The storage, transportation, distribution, dispensing, sale or use of gasoline, motor fuels, or other fuels containing benzene subsequent to its final discharge from bulk wholesale storage facilities,*

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

except that operations where gasoline or motor fuels are dispensed for more than 4 hours per day in an indoor location are covered by this standard.

- *Loading and unloading operations at bulk wholesale storage facilities which use vapor control systems for all loading and unloading operations, except for the provisions of [hazard communication](#) as incorporated into this standard and the emergency provisions of this standard.*
- *The storage, transportation, distribution or sale of benzene or liquid mixtures containing more than 0.1 percent benzene in intact containers or in transportation pipelines while sealed in such a manner as to contain benzene vapors or liquid, except for the provisions of [hazard communication](#) as incorporated into this section and the emergency provisions of this standard.*
- *Containers and pipelines carrying mixtures with less than 0.1 percent benzene and natural gas processing plants processing gas with less than 0.1 percent benzene.*
- *Work operations where the only exposure to benzene is from liquid mixtures containing 0.1 percent or less of benzene by volume or the vapors released from such liquids after September 12, 1989; except that tire building machine operators using solvents with more than 0.1 percent benzene are covered by this standard.*
- *Oil and gas drilling, production and servicing operations.*
- *Coke oven batteries.*

This standard provides the permissible exposure limit (PEL) along with other requirements such as regulated areas, exposure monitoring, methods of compliance (i.e., engineering controls, work practice controls, written compliance program), respirator program (reference the [respiratory protection](#) general industry standard), protective work clothing and equipment (reference the general industry standard on [eye and face protection](#)), hygiene facilities and practices (reference the [sanitation](#) general industry standard), hazard communication program (reference the [hazard communication](#) general industry standard), medical surveillance, information and training, signs and labels, and recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [benzene](#).*

The appendices for benzene are as follows: [appendix A](#) provides the substance safety data sheet; [appendix B](#) provides the substance technical guidelines; [appendix C](#) provides the medical surveillance guidelines; and [appendix D](#) provides the sampling and analytical methods for benzene monitoring and measurement procedures. This standard also provides definitions including:

[Action level](#) means an airborne concentration of benzene of 0.5 ppm calculated as an 8-hour time-weighted average.

[Benzene](#) (C₆H₆) (CAS Registry No. 71-43-2) means liquefied or gaseous benzene. It includes benzene contained in liquid mixtures and the benzene vapors released by these liquids. It does not include trace amounts of unreacted benzene contained in solid materials.

[Emergency](#) means any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which may or does result in an unexpected significant release of benzene.

[Employee exposure](#) means exposure to airborne benzene which would occur if the employee were not using respiratory protective equipment.

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Additional related information can be found on the safety and health topic pages for [personal protective equipment](#), [hazard communication](#), [eyewash stations and emergency showers](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#).

Do your employees have exposure to blood or OPIM? Yes / No / Unsure

If yes, then you need to comply with the [bloodborne pathogens](#) standard as it applies to all occupational exposure to blood or other potentially infectious materials (OPIM). It provides requirements for a written exposure control plan, methods of compliance (i.e. engineering controls, work practice controls), personal protective equipment, housekeeping, regulated waste, labels and signs, laundry, HIV/HBV laboratories, hepatitis B vaccination, post-exposure evaluation and follow-up, information and training, recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)), and sharps injury log. **Note:** *The requirements applicable to shipyard employment are identical to the general industry standard for [bloodborne pathogens](#).*

[Appendix A](#) provides the hepatitis B vaccine declination form. This standard also provides definitions including:

[Occupational exposure](#) means reasonably anticipated contact with skin, eye, mucous membrane, or parenteral (skin piercing) contact with blood or other potentially infectious materials that may result from the performance of an employee's duties. Occupational exposure includes primary or collateral job duties to provide first aid medical assistance. It does not include Good Samaritan acts of first aid and CPR.

[Bloodborne Pathogens](#) means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

[Universal Precautions](#) is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

[Other potentially infectious materials](#) means:

- *The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;*
- *Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and*
- *HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.*

Additional information can be found on the safety and health topics pages for [bloodborne pathogens, recording and reporting, personal protective equipment, eyewash stations and emergency showers, hierarchy of controls, employee exposure and medical records](#) and [medical services and first aid](#).

Do your employees have exposure to 1,2-dibromo-3-chloropropane? Yes / No / Unsure

If yes, then you need to comply with the [1,2-dibromo-3-chloropropane](#) standard as it applies to occupational exposure to 1,2-dibromo-3-chloropropane (DBCP). It does not apply to:

- *Exposure to DBCP which results solely from the application and use of DBCP as a pesticide; or*
- *The storage, transportation, distribution or sale of DBCP in intact containers sealed in such a manner as to prevent exposure to DBCP vapors or liquid, except for emergency requirements, employee information and training, and communication of hazards required by the standard.*

It provides the permissible exposure limit and requirements pertaining to regulated areas, exposure monitoring, methods of compliance (i.e., engineering controls, work practice controls, written compliance program), emergency situations (i.e., written plan), respirator program (reference the [respiratory protection](#) general industry standard), protective work clothing and equipment (reference the general industry standard on [eye and face protection](#)), hygiene facilities and practices (reference the [sanitation](#) general industry standard), housekeeping, hazard communication program (reference the [hazard communication](#) general industry standard), medical surveillance, information and training, signs and labels, and recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [1,2-dibromo-3-chloropropane](#).*

The appendices for this standard cover the following: [appendix A](#) provides the substance safety data sheet for DBCP; [appendix B](#) provides the substance technical guidelines for DBCP; and [appendix C](#) provides the Medical surveillance guidelines for DBCP. This standard also provides definitions such as:

DBCP means 1,2-dibromo-3-chloropropane, Chemical Abstracts Service Registry Number 96-12-8, and includes all forms of DBCP.

Emergency means any occurrence such as, but not limited to equipment failure, rupture of containers, or failure of control equipment which may, or does, result in an unexpected release of DBCP.

Additional related information can be found on the safety and health topic pages for [personal protective equipment](#), [hazard communication](#), [eyewash stations and emergency showers](#), [emergency action plans](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#).

Do your employees have occupational exposure to acrylonitrile? Yes / No / Unsure

If yes, then you need to comply with the standard on [acrylonitrile](#) as it applies to all occupational exposures to acrylonitrile (AN). It does not apply to exposures which result solely from the processing, use, and handling of the following materials:

- *ABS resins, SAN resins, nitrile barrier resins, solid nitrile elastomers, and acrylic and modacrylic fibers, when these listed materials are in the form of finished polymers, and products fabricated from such finished polymers;*
- *Materials made from and/or containing AN for which objective data is reasonably relied upon to demonstrate that the material is not capable of releasing AN in airborne concentrations in excess*

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

- *of 1 ppm as an eight (8)-hour time-weighted average, under the expected conditions of processing, use, and handling which will cause the greatest possible release; and*
- *Solid materials made from and/or containing AN which will not be heated above 170 deg. F during handling, use, or processing.*

Note: *An employer relying upon exemption shall maintain records of the objective data supporting that exemption, and of the basis of the employer's reliance on the data.*

This standard provides the permissible exposure limits and the requirements pertaining to exposure monitoring, medical surveillance, regulated areas, methods of compliance (i.e., engineering controls, work practice controls, written compliance program), respirator program (reference the [respiratory protection](#) general industry standard), protective work clothing and equipment (reference the general industry standard on [eye and face protection](#) and [general requirements](#)), hygiene facilities and practices (reference the [sanitation](#) general industry standard), hazard communication program (reference the [hazard communication](#) general industry standard), information and training, emergency situations (i.e., written plan), training, signs and labels, housekeeping, and recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). **Note:** *The requirements applicable to shipyard employment are identical to the general industry standard for [acrylonitrile](#).*

The appendices for acrylonitrile cover the following: [appendix A](#) provides the substance safety data sheet; [appendix B](#) provides the substance technical guidelines; [appendix C](#) provides the medical surveillance guidelines; and [appendix D](#) provides the sampling and analytical methods. This standard also provides definitions such as:

[Acrylonitrile or AN](#) means acrylonitrile monomer, chemical formula CH₂=CHCN.

[Action level](#) means a concentration of AN of 1 ppm as an eight (8)-hour time-weighted average.

Additional related information can be found on the safety and health topic pages for [personal protective equipment](#), [hazard communication](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#).

Do your employees have occupational exposure to ethylene oxide? Yes / No / Unsure

If yes, you need to comply with the [ethylene oxide](#) standard as it applies to all occupational exposures to ethylene oxide (EtO). It does not apply to:

- *The processing, use, or handling of products containing EtO where objective data are reasonably relied upon that demonstrate that the product is not capable of releasing EtO in airborne concentrations at or above the action level under the expected conditions of processing, use, or handling that will cause the greatest possible release.*

It provides the permissible exposure limit and requirements pertaining to exposure monitoring, regulated areas, methods of compliance (i.e., engineering controls, work practice controls, written compliance program), respirator program (reference the [respiratory protection](#) general industry standard), personal protective equipment (reference the general industry standard on [eye and face protection](#) and [general requirements](#)), hygiene facilities and practices (reference the [sanitation](#) general industry standard), hazard

communication program (reference the [hazard communication](#) general industry standard), information and training, emergency situations (reference [emergency action plans](#) and [fire prevention plans](#) in general industry), medical surveillance, training, signs and labels, and recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [ethylene oxide](#).*

The appendices for ethylene oxide cover the following: [appendix A](#) provides the substance safety data sheet; [appendix B](#) provides the substance technical guidelines; [appendix C](#) provides the medical surveillance guidelines; and [appendix D](#) provides the sampling and analytical methods for ethylene oxide. This standard also provides the definitions such as:

[Action level](#) means a concentration of airborne EtO of 0.5 ppm calculated as an eight (8)-hour time-weighted average.

[Emergency](#) means any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that is likely to or does result in an unexpected significant release of EtO.

[Employee exposure](#) means exposure to airborne EtO which would occur if the employee were not using respiratory protective equipment.

[Ethylene oxide or EtO](#) means the three-membered ring organic compound with chemical formula C(2)H(4)O.

Additional related information can be found on the safety and health topic pages for [personal protective equipment](#), [hazard communication](#), [emergency action plans](#), [fire prevention plans](#), [eyewash stations and emergency showers](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#).

Do your employees have occupational exposure to formaldehyde? Yes / No / Unsure

If yes, then you need to comply with the [formaldehyde](#) standard as it applies to all occupational exposures to formaldehyde (i.e., from formaldehyde gas, its solutions, and materials that release formaldehyde). It provides the permissible exposure limit and requirements pertaining to the permissible exposure limit, exposure monitoring, regulated areas, signs and labels, methods of compliance (i.e., engineering controls, work practice controls), respirator program (reference the [respiratory protection](#) general industry standard), personal protective equipment (reference the general industry standard on [eye and face protection](#) and [general requirements](#)), emergency situations, hygiene protection (reference the [sanitation](#) general industry standard), housekeeping, hazard communication program (reference the [hazard communication](#) general industry standard), information and training, emergency procedures, medical surveillance, training, signs and labels, and recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [formaldehyde](#).*

The appendices for formaldehyde cover the following: [appendix A](#) provides the substance technical guidelines; [appendix B](#) provides the sampling strategy and analytical methods; [appendix C](#) pertains to medical surveillance, and [appendix D](#) provides the nonmandatory medical disease questionnaire. This standard also provides definitions such as:

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Action level means a concentration of 0.5 part formaldehyde per million parts of air (0.5 ppm) calculated as an eight (8)-hour time-weighted average (TWA) concentration.

Emergency is any occurrence, such as but not limited to equipment failure, rupture of containers, or failure of control equipment that results in an uncontrolled release of a significant amount of formaldehyde.

Employee exposure means the exposure to airborne formaldehyde which would occur without corrections for protection provided by any respirator that is in use.

Additional information can be found on the safety and health topic pages for [formaldehyde](#), [personal protective equipment](#), [hazard communication](#), [eyewash stations and emergency showers](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#). Also reference [CPL 02-02-052](#) - Enforcement Procedure for Occupational Exposure to Formaldehyde.

Do your employees have occupational exposure to methylenedianiline? Yes / No / Unsure

If yes, then you need to comply with the [methylenedianiline](#) standard as it applies to all occupational exposures to MDA. It does not apply to:

- *The processing, use, and handling of products containing MDA where initial monitoring indicates that the product is not capable of releasing MDA in excess of the action level under the expected conditions of processing, use, and handling which will cause the greatest possible release; and where no "dermal exposure to MDA" can occur.*
- *The processing, use, and handling of products containing MDA where objective data are reasonably relied upon which demonstrate the product is not capable of releasing MDA under the expected conditions of processing, use, and handling which will cause the greatest possible release; and where no "dermal exposure to MDA" can occur.*
- *The storage, transportation, distribution or sale of MDA in intact containers sealed in such a manner as to contain the MDA dusts, vapors, or liquids, except for the provisions of [hazard communication](#) and emergency situations.*
- *The [construction industry](#).*
- *To materials in any form which contain less than 0.1 percent MDA by weight or volume.*
- *"Finished articles containing MDA."*

Note: *Where products containing MDA are exempted under this standard, the employer shall maintain records of the initial monitoring results or objective data supporting that exemption and the basis for the employer's reliance on the data, as provided in the recordkeeping provision of this standard.*

This standard provides the permissible exposure limit (PEL) and requirements pertaining to emergency situations (reference the general industry standards on [emergency action plans](#) and [fire prevention plans](#)), exposure monitoring, regulated areas, methods of compliance (i.e., written compliance program, engineering controls, work practices), respirator program (reference the [respiratory protection](#) general industry standard), protective work clothing and equipment (reference the general industry standard on [eye and face protection](#)), hygiene facilities and practices (reference the [sanitation](#) general industry standard), hazard communication program (reference the general industry [hazard communication](#) standard), information and training, signs and labels, housekeeping, medical

surveillance, and recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [methylenedianiline](#).*

The appendices for MDA cover the following: [appendix A](#) provides substance data sheet; [appendix B](#) provides the substance technical guidelines, [appendix C](#) provides the medical surveillance guidelines; and [appendix D](#) provides the sampling and analytical methods for MDA monitoring and measurement procedures. This standard also provides definitions such as:

Action level means a concentration of airborne MDA of 5 ppb as an eight (8)-hour time-weighted average.

Employee exposure means exposure to MDA which would occur if the employee were not using respirators or protective work clothing and equipment.

Additional related information can be found on the safety and health topic pages for [personal protective equipment](#), [hazard communication](#), [emergency action plans](#), [fire prevention plans](#), [eyewash stations and emergency showers](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#).

Do your employees have occupational exposure to methylene chloride? Yes / No / Unsure

If yes, then you need to comply with the [methylene chloride](#) standard as it applies to all occupational exposures to methylene chloride (MC) in general industry, construction and shipyard employment. It provides the permissible exposure limit and requirements pertaining to exposure monitoring, methods of compliance (i.e., engineering controls, work practice controls, incidental leaks - reference the general industry standard on [HAZWOPER](#), paragraph (q)), respirator program (reference the [respiratory protection](#) general industry standard), protective work clothing and equipment (reference the general industry standard on [eye and face protection](#)), hygiene facilities, hazard communication program (reference the [hazard communication](#) general industry standard), information and training, labels, medical surveillance, and recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [methylene chloride](#).*

The appendices for MC cover the following: [appendix A](#) provides the substance safety data sheet and technical guidelines; [appendix B](#) pertains to medical surveillance; and [appendix C](#) pertains to questions and answers for methylene chloride control in furniture stripping. This standard also provides definitions such as:

Action level means a concentration of airborne MC of 12.5 parts per million (ppm) calculated as an eight (8)-hour time-weighted average (TWA).

Emergency means any occurrence, such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment, which results, or is likely to result in an uncontrolled release of MC. If an incidental release of MC can be controlled by employees such as maintenance personnel at the time of release and in accordance with the leak/spill provisions required by paragraph (f) of this section, it is not considered an emergency as defined by this standard.

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

Employee exposure means exposure to airborne MC which occurs or would occur if the employee were not using respiratory protection.

Additional information can be found on the safety and health topic pages for [methylene chloride](#), [personal protective equipment](#), [hazard communication](#), [hazardous waste operations and emergency response](#), [eyewash stations and emergency showers](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#). Also reference [CPL 02-02-070 - Inspection Procedures for Occupational Exposure to Methylene Chloride](#).

Do your employees have occupational exposure to respirable crystalline silica? Yes / No / Unsure

If yes, then you need to comply with the [respirable crystalline silica](#) standard as it applies to all occupational exposures to respirable crystalline silica, except:

- *Construction work; falls under [respirable crystalline silica](#);*
- *[Agricultural operations](#);*
- *Exposures that result from the processing of sorptive clays.*
- *Where the employer has objective data demonstrating that employee exposure to respirable crystalline silica will remain below 25 micrograms per cubic meter of air (25 $\mu\text{g}/\text{m}^3$) as an 8-hour time-weighted average (TWA) under any foreseeable conditions.*

This standard provides the permissible exposure limit and requirements pertaining to exposure assessment, regulated areas, methods of compliance (i.e., written exposure control plan), respirator program (reference the [respiratory protection](#) general industry standard), protective work clothing and equipment (reference the general industry standard on [eye and face protection](#)), hygiene facilities, hazard communication program (reference the [hazard communication](#) general industry standard), information and training, signs and labels, medical surveillance, and recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [respirable crystalline silica](#).*

The appendices for silica cover the following: [appendix A](#) provides the methods of sample analysis and [appendix B](#) pertains to the medical surveillance guidelines. This standard also provides the definitions such as:

Action level means a concentration of airborne respirable crystalline silica of 25 $\mu\text{g}/\text{m}^3$, calculated as an 8-hour TWA.

Employee exposure means the exposure to airborne respirable crystalline silica that would occur if the employee were not using a respirator.

Respirable crystalline silica means quartz, cristobalite, and/or tridymite contained in airborne particles that are determined to be respirable by a sampling device designed to meet the characteristics for respirable-particlesize- selective samplers specified in the International Organization for Standardization (ISO) 7708:1995: Air Quality-Particle Size Fraction Definitions for Health-Related Sampling.

Additional related information can be found on the safety and health topic pages for [silica](#), [personal protective equipment](#), [hazard communication](#), [hierarchy of controls](#), [employee exposure and medical](#)

[records](#) and [respiratory protection](#). In addition, occupational exposure to silica falls within the OSH Division [health hazards special emphasis program](#). Also reference [CPL 02-02-080 - Inspection Procedures for Respirable Crystalline Silica Standards](#) and [OPN 135 - Health Hazards Special Emphasis Program](#).

Do you have employees that may be exposed to any chemical under normal conditions or in foreseeable emergencies? Yes / No / Unsure

If yes, then you need to comply with the [hazard communication](#) standard. It applies to any chemical which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency.

This standard does not apply to:

- *Any hazardous waste as such term is defined by the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 et seq.), when subject to regulations issued under that Act by the Environmental Protection Agency;*
- *Any hazardous substance as such term is defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. 9601 et seq.) when the hazardous substance is the focus of remedial or removal action being conducted under CERCLA in accordance with Environmental Protection Agency regulations.*
- *Tobacco or tobacco products;*
- *Wood or wood products, including lumber which will not be processed, where the chemical manufacturer or importer can establish that the only hazard they pose to employees is the potential for flammability or combustibility (wood or wood products which have been treated with a hazardous chemical covered by this standard, and wood which may be subsequently sawed or cut, generating dust, are not exempted);*
- *Articles; **Note:** Defined as a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees.*
- *Food or alcoholic beverages which are sold, used, or prepared in a retail establishment (such as a grocery store, restaurant, or drinking place), and foods intended for personal consumption by employees while in the workplace;*
- *Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act when it is in solid, final form for direct administration to the patient (e.g., tablets or pills); drugs which are packaged by the chemical manufacturer for sale to consumers in a retail establishment (e.g., over-the-counter drugs); and drugs intended for personal consumption by employees while in the workplace (e.g., first aid supplies);*
- *Cosmetics which are packaged for sale to consumers in a retail establishment, and cosmetics intended for personal consumption by employees while in the workplace;*
- *Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act and Federal Hazardous Substances Act, where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than*

the range of exposures that could reasonably be experienced by consumers when used for the purpose intended;

- *Nuisance particulates where the chemical manufacturer or importer can establish that they do not pose any physical or health hazard covered under this section;*
- *Ionizing and nonionizing radiation; and*
- *Biological hazards.*

The standard does not require labeling of the following chemicals:

- *Any pesticide when subject to the labeling requirements of Federal Insecticide, Fungicide, and Rodenticide Act and labeling regulations issued under that Act by the Environmental Protection Agency;*
- *Any chemical substance or mixture that are subject to the labeling requirements the Toxic Substances Control Act and labeling regulations issued under that Act by the Environmental Protection Agency;*
- *Any food, food additive, color additive, drug, cosmetic, or medical or veterinary device or product, including materials intended for use as ingredients in such products (e.g. flavors and fragrances), when they are subject to the labeling requirements under Federal Food, Drug, and Cosmetic Act or the Virus-Serum-Toxin Act by either the Food and Drug Administration or the Department of Agriculture;*
- *Any distilled spirits (beverage alcohols), wine, or malt beverage intended for nonindustrial use, when subject to the labeling requirements of Federal Alcohol Administration Act and labeling regulations issued under that Act by the Bureau of Alcohol, Tobacco, Firearms and Explosives;*
- *Any consumer product or hazardous substance when subject to a consumer product safety standard or labeling requirement of Consumer Product Safety Act and Federal Hazardous Substances Act or regulations issued under those Acts by the Consumer Product Safety Commission; and*
- *Agricultural or vegetable seed treated with pesticides and labeled in accordance with the Federal Seed Act and the labeling regulations issued under that Act by the Department of Agriculture.*

This standard applies to laboratories only as follows:

- *Employers shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced;*
- *Employers shall maintain any safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible during each workshift to laboratory employees when they are in their work areas;*
- *Employers shall ensure that laboratory employees are provided information and training; and*
- *Laboratory employers that ship hazardous chemicals are considered to be either a chemical manufacturer or a distributor under this rule, and thus must ensure that any containers of hazardous chemicals leaving the laboratory are correctly labeled and that a safety data sheet is provided to distributors and other employers per requirements of the standard.*

This standard provides the requirements for a written hazard communication program, labels and other forms of warning, safety data sheets, information and training, trade secrets, hazard classification, chemical inventory, and non-routine tasks. The appendices for this standard cover the following: [appendix A](#) provides the health hazard criteria; [appendix B](#) provides the physical

criteria; [appendix C](#) provides the allocation of label elements; [appendix D](#) provides the safety data sheets; [appendix E](#) provides definition of "trade secret"; and [appendix F](#) pertains to the guidance for hazard classifications re: carcinogenicity. *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [hazard communication](#).*

This standard also provides definitions such as:

[Chemical](#) means any substance, or mixture of substances.

[Article](#) means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) 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.

[Hazard class](#) means the nature of the physical or health hazards, e.g., flammable solid, carcinogen, oral acute toxicity.

[Foreseeable emergency](#) means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace.

[Label](#) means an appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

[Safety data sheet \(SDS\)](#) means written or printed material concerning a hazardous chemical that is prepared in accordance with the standard.

Additional information can be found on the safety and health topic pages for [hazard communication](#), [personal protective equipment](#), [eyewash stations and emergency showers](#), [organic solvents](#), [acids and bases](#), [flammable liquids](#), [hierarchy of controls](#), [employee exposure and medical records](#) and [respiratory protection](#). Also reference [CPL 02-02-079](#) - Inspection Procedures for the Hazard Communication Standard (HCS 2012) and the [Compliance Memo](#) - Clarification to CPL 02-02-079, Inspection Procedures for the Hazard Communication Standard (HCS 2012).

Do you have employees that work with hazardous substances in laboratories? Yes / No / Unsure

If yes, then you need to comply with the standard on [occupational exposure to hazardous chemicals in laboratories](#). It applies to all employers engaged in the laboratory use of hazardous chemicals as defined below. Where this standard applies, it shall supersede, for laboratories, the requirements of all other general industry health standards in [subpart Z](#), except as follows:

- *For any OSHA health standard, only the requirement to limit employee exposure to the specific permissible exposure limit shall apply for laboratories, unless that particular standard states otherwise.*

Note: This document is intended to be consistent with existing OSHA standards; therefore, if an area is considered by the reader to be inconsistent with a standard, then the OSHA standard should be followed.

- *Where the action level (or in the absence of an action level, the permissible exposure limit) is routinely exceeded for an OSHA regulated substance with exposure monitoring and medical surveillance requirements of this standard shall apply.*
- *Prohibition of eye and skin contact where specified by any OSHA health standard shall be observed.*
- *Where the action level (or in the absence of an action level, the permissible exposure limit) is routinely exceeded for an OSHA regulated substance with exposure monitoring and medical surveillance requirements of this standard shall apply.*

This standard does not apply to:

- *Uses of hazardous chemicals which do not meet the definition of laboratory use, and in such cases, the employer shall comply with the relevant general industry standard in subpart Z, even if such use occurs in a laboratory.*
- *Laboratory uses of hazardous chemicals which provide no potential for employee exposure. Examples of such conditions might include:*
 - *Procedures using chemically-impregnated test media such as Dip-and-Read tests where a reagent strip is dipped into the specimen to be tested and the results are interpreted by comparing the color reaction to a color chart supplied by the manufacturer of the test strip; and*
 - *Commercially prepared kits such as those used in performing pregnancy tests in which all of the reagents needed to conduct the test are contained in the kit*

It provides the requirements pertaining to permissible exposure limits, exposure determinations, written chemical hygiene plan, chemical hygiene officer, information and training, medical consultation and examinations, hazard identification, respirator use (reference the [respiratory protection](#) general industry standard), safety data sheets, and recordkeeping (reference the general industry standard on [access to employee exposure and medical records](#)). *Note: The requirements applicable to shipyard employment are identical to the general industry standard for [occupational exposure to hazardous chemicals in laboratories](#).*

[Appendix A](#) for this standard pertains to the National Research Council recommendations concerning chemical hygiene in laboratories. This standard also provides definitions such as:

[Laboratory](#) means a facility where the "laboratory use of hazardous chemicals" occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis.

[Laboratory use of hazardous chemicals](#) means handling or use of such chemicals in which all of the following conditions are met:

- *Chemical manipulations are carried out on a "laboratory scale;"*
- *Multiple chemical procedures or chemicals are used;*
- *The procedures involved are not part of a production process, nor in any way simulate a production process; and*
- *"Protective laboratory practices and equipment" are available and in common use to minimize the potential for employee exposure to hazardous chemicals.*

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Laboratory scale means work with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one person. "Laboratory scale" excludes those workplaces whose function is to produce commercial quantities of materials.

Additional related information can be found on the safety and health topic pages for [personal protective equipment](#), [hazard communication](#), [eyewash stations and emergency showers](#), [hierarchy of controls](#), [laboratory safety](#), [employee exposure and medical records](#) and [respiratory protection](#).

Do you conduct medical surveillance and/or exposure monitoring? Yes / No / Unsure

If yes, you need to comply with [access to employee exposure and medical records](#) standard. It applies to all employee exposure and medical records, and analyses thereof, of such employees, whether or not the records are mandated by specific occupational safety and health standards.

It is applicable to each general industry, maritime, and construction employer who makes, maintains, contracts for, or has access to employee exposure or medical records, or analyses thereof, pertaining to employees exposed to toxic substances or harmful physical agents. This standard applies to all employee exposure and medical records, and analyses thereof, made or maintained in any manner, including on an in-house or contractual (e.g., fee-for-service) basis.

This standard provides requirements for the preservation of records as follows: medical records for each employee shall be preserved and maintained for at least the duration of employment plus thirty (30) years and employee exposure records shall be preserved and maintained for at least thirty (30) years. It provides requirements pertaining to record access, trade secrets, employee information, and transfer of records. **Note:** *The requirements applicable to shipyard employment are identical to the general industry standard for [access to employee exposure and medical records](#).*

The appendices cover the following: [appendix A](#) provides a sample authorization letter for the release of employee medical record information to a designated representative and [appendix B](#) pertains to the availability of NIOSH registry of toxic effects of chemical substances (RTECS).

This standard also provides definitions such as:

Exposure or exposed means that an employee is subjected to a toxic substance or harmful physical agent in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.), and includes past exposure and potential (e.g., accidental or possible) exposure, but does not include situations where the employer can demonstrate that the toxic substance or harmful physical agent is not used, handled, stored, generated, or present in the workplace in any manner different from typical non-occupational situations.

Employee exposure record means a record containing any of the following kinds of information:

- *Environmental (workplace) monitoring or measuring of a toxic substance or harmful physical agent, including personal, area, grab, wipe, or other form of sampling, as well as related collection and analytical methodologies, calculations, and other background data relevant to interpretation of the results obtained;*
- *Biological monitoring results which directly assess the absorption of a toxic substance or harmful physical agent by body systems (e.g., the level of a chemical in the blood, urine, breath, hair,*

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- fingernails, etc.) but not including results which assess the biological effect of a substance or agent or which assess an employee's use of alcohol or drugs;*
- *(Material) safety data sheets indicating that the material may pose a hazard to human health; or*
 - *In the absence of the above, a chemical inventory or any other record which reveals where and when used and the identity (e.g., chemical, common, or trade name) of a toxic substance or harmful physical agent.*

[Employee medical record](#) means a record concerning the health status of an employee which is made or maintained by a physician, nurse, or other health care personnel, or technician, including: means a record concerning the health status of an employee which is made or maintained by a physician, nurse, or other health care personnel, or technician, including:

- *Medical and employment questionnaires or histories (including job description and occupational exposures),*
- *The results of medical examinations (pre-employment, pre-assignment, periodic, or episodic) and laboratory tests (including chest and other X-ray examinations taken for the purpose of establishing a base-line or detecting occupational illnesses and all biological monitoring not defined as an "employee exposure record"),*
- *Medical opinions, diagnoses, progress notes, and recommendations,*
- *First aid records,*
- *Descriptions of treatments and prescriptions, **and***
- *Employee medical complaints.*

More related information can be found on our safety and health topics page for [recording and reporting](#), [medical services and first aid](#), [employee exposure and medical records](#) and [hierarchy of controls](#).

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General Duty Clause

Does the "General Duty Clause" Apply to You? Yes / No / Unsure

This is an automatic yes. The general duty clause applies to everyone covered under the OSH Act. The GDC is used when there isn't a standard for a recognized hazard that can cause death or serious injury or serious physical harm. Examples of general duty clause violations can include hazards such as heat stress, seatbelt not on a forklift, and ergonomics.

[NCGS 95-129\(1\)](#) - General Duty Clause

- *"Each employer shall furnish to each of his employee's conditions of employment and a place of employment free from recognized hazards that are causing or are likely to cause death or serious injury or serious physical harm to his employees."*

There are four elements necessary for a GDC violation:

- *The employer failed to keep the workplace free of a hazard to which employees of that employer were exposed;*
- *The hazard was recognized in the industry;*
- *The hazard was causing or was likely to cause death or serious physical harm; and*
- *There was a feasible and useful method to correct the hazard.*

Additional information relating to GDC violations can be found in the North Carolina field operations manual, [chapter IV](#) - violations.

Learn more about the "[Special Requirements](#)" within NCGS 95-129(1) that have programs and plans, training and other forms of communication, procedures and controls, signs and markings, qualified and competent persons, inspections and tests, recordkeeping and documentation, personal protective equipment, and references to other standards.

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Additional Assistance for Shipyard Employment

If the employer still has questions regarding the OSHA standards or North Carolina state-specific standards, they can submit an inquiry about safety and health requirements to Ask OSH through the [online form](#) or by phone at 919-707-7876.

Resource information can be found on the [safety and health topics pages](#), [Maritime Safety and Health Resources \(Scan QR Code\)](#) and [Industry Guide 53, OSHA Shipyard Employment Standards Requiring Programs, Inspections, Procedures, Records and/or Training](#), provides requirements for standards related to shipyard employment and recordkeeping including applicable state-specific standards.

Example safety and health [programs](#) and [presentations \(pre-recorded webinars\)](#) along with [publications](#) are available to assist the employer in meeting standards requirements. Specifically, the brochure on [top ten most frequently cited serious violations](#) can be useful in identifying frequently cited violations by industry. For more information regarding the required state and federal workplace posters, go to the [NCDOL State and Federal workplace posters](#) webpage.

The [NCDOL Library](#) also offers free safety and health videos and related research assistance on consensus standards (i.e., ANSI, NFPA, NEC). The education, training and technical assistance bureau provides [free online safety and health training](#) and [outreach services](#) (i.e., speaker's bureau requests, safety booths) upon request. In addition, the [consultative services bureau](#) provides free confidential on-site employer assistance.

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Special Emphasis Programs

The North Carolina Special Emphasis Programs (SEPs) are part of the NC OSH Division's five year strategic management plan for which its two principal goals are: 1) to reduce the state's workplace fatality rate by at least 2%; and 2) to reduce the state's non-fatal injury and illness rate by at least 5%. For each SEP that applies to a specific industrial sector, similar goals for reducing the fatality rate and/or non-fatal injury and illness rate are applied.

What is a Special Emphasis Program?

From the context of occupational safety and health, a special emphasis program (SEP) is a concerted effort for which the goals are:

- *To reduce or eliminate fatalities overall and within specific industry sectors;*
- *To reduce injury and illness rates in specific business sectors to levels below the national average for those sectors; and*
- *To reduce or eliminate employee exposure to specific types of hazards.*

What SEPs are currently in effect in North Carolina?

The special emphasis programs in effect in North Carolina are part of the OSH Division five-year strategic management plan. The SEPs currently in effect or added as part of the next five-year strategic management plan are listed below with links provided to the corresponding safety and health topic page:

- [Amputations Special Emphasis Program](#)
- [Construction Special Emphasis Program](#)
- [Food Manufacturing Special Emphasis Program](#)
- [Health Hazards Special Emphasis Program](#) (see [Lead](#), [Isocyanates](#), [Hexavalent Chromium](#), [Silica](#), [Beryllium](#))
- [Long Term Care Special Emphasis Program](#)
- [Logging and Arboriculture Special Emphasis Program](#)
- ^{New!} [Struck-By Special Emphasis Program](#)
- [Warehousing and Storage and Related Product Distribution Special Emphasis Program](#)

How does the OSH Division conduct a Special Emphasis Program?

Each of the bureaus in the OSH Division has designated responsibilities within each SEP.

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- The East and West Compliance Bureaus conduct *enforcement activity* targeted at covered industries to ensure compliance with occupational safety and health rules and regulations towards the goal of reducing or eliminating employee exposure to the focus hazards of that SEP.
- The *Consultative Services Bureau* (CSB) conducts on-site visits and audits to assist employers that voluntarily seek help in identifying and eliminating hazards and improving their overall safety and health programs.
- The Education, Training and Technical Assistance (ETTA) Bureau provides *outreach training* for each SEP to assist employers to identify and abate hazards in the workplace and to learn the requirements of applicable OSH standards.
- The Planning, Statistics and Information Management (PSIM) Bureau develops targeting schedules for each SEP to better allocate compliance resources and provides the SEP team leaders with updated injury and illness incidence rates to assist them in determining the impact of that focus.

What are the various types of emphasis programs?

- National Emphasis Program ([NEP](#))
 - Apply to all Federal OSHA Regions
 - State Plan States required to implement the same or equally effective emphasis programs
- Regional Emphasis Programs ([REP](#)) and Local Emphasis Program ([LEP](#))
 - Administered by Federal OSHA
 - Designed and implemented at regional office and/or area office level
 - Intended to address hazards or industries that pose a particular risk to workers in the office's jurisdiction
 - Accompanied by outreach
 - Apply only to states under Federal OSHA jurisdiction
- North Carolina Special Emphasis Program ([SEP](#))
 - May be identical to OSHA NEP or LEP
 - Often unique to circumstances in North Carolina (OSHA state plan state)

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OSH Division Outreach Resources and Services

[Safety and health programs and plans](#) (i.e., example programs to be made site-specific) [Safety and health topics](#) (i.e., learn more about safety and health topics)

[Which OSHA standards apply?](#) (identify the standards applicable to your worksite)

[OSHA standards with special requirements](#) (identify standards that have programs, plans, training, etc.)

[Safety and health presentations](#) (downloadable presentations to be made site-specific)

[OSH training calendar](#) (i.e., register for webinars, in-person classroom training, virtual events)

[Streaming video services](#) (on-demand training)

[Request outreach services](#) (i.e., request training, booths, guest speaker)

[AskOSHA](#) (interpretations)

[NCDOL library](#) (i.e., consensus standards, research assistance)

[Inspections](#) (general industry standards that require inspections)

[Programs, plans and procedures](#) (general industry standards that require programs, plans, procedures)

[Training](#) (general industry standards that require training)

[OSH enforcement procedures](#) (e.g., compliance directives, operational procedure notices)

[OSH division resources](#) (provides all training and resources available on the NCDOL website via QR Codes)

Other Outreach Resources

[Establishment search](#) (search OSHA enforcement inspections nationwide)

[Interpretations](#) (federal OSHA interpretations for general industry)

[Training](#) (Susan Harwood Grant PowerPoints)

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