

## 29 CFR Part 1917 - Marine Terminal Standards

**Note:** NC State-Specific Standards that are relevant to Marine Terminals are included at the end.

### OSHA Standards With Special Requirements

These webpages are designed to assist employers in complying with standards that have "**special requirements**". For the purpose of this technical guidance, special requirements includes programs, plans, procedures, policies, inspections, certifications, competent persons, qualified persons, training, medical surveillance, exposure monitoring, signs, tags, markings, tests, records and recordkeeping requirements that are applicable in meeting the requirements of OSHA standards by industry. *If a standard or subpart are not listed, it did not have one of these types of special requirements.*

**Note:** While all attempts have been made to ensure the accuracy of the content and completeness in the information provided, it may not include all the specific standards that have special requirements that may be required by an OSHA standard. To ensure completeness in meeting each standard's requirement, the specific standard should be referenced.

To learn more about these special requirements, click on the tabs below.

### Special Requirements

This webpage is to be used in conjunction with the [OSHA Standards With Special Requirements](#) webpages and [Marine Terminals Standards With Special Requirements](#) (29 CFR Part 1917).

- Subpart A - [General Provisions](#)
- Subpart B - [Marine Terminal Operations](#)
- Subpart C - [Cargo Handling Gear and Equipment](#)
- Subpart D - [Specialized Terminals](#)
- Subpart E - [Personal Protection](#)
- Subpart F - [Terminal Facilities](#)
- Subpart G - [Related Terminal Operations and Equipment](#)
- [General Duty Clause](#)

- [Additional Assistance for Marine Terminals](#)
- [Special Emphasis Programs](#)

**Please note:** [Subpart A](#) also provides incorporation by reference of consensus standards, and OMB control numbers under the Paperwork Reduction Act.

## **Subpart A - [General Provisions](#)**

[Subpart A](#) provides the standards in 29 CFR 1910 - General Industry, that apply to marine terminals.

To learn if subpart A applies to you, go to [Does "Subpart A - General Provisions" Apply to You?](#)

## **Special Requirements**

### **1917.1 - Scope and Applicability**

**Scope:** This [standard](#) provides the scope and applicability of the marine terminal standards as well as general industry (1910) standards that apply to marine terminals.

**Special Requirements:** References other standards

Part 1910 of this chapter does not apply to marine terminals except for the following provisions:

- [1917.1\(a\)\(2\)\(i\)](#) - Abrasive blasting. [Subpart G](#), § [1910.94\(a\)](#).
- [1917.1\(a\)\(2\)\(ii\)](#) - Access to employee exposure and medical records. [Subpart Z](#), § [1910.1020](#);
- [1917.1\(a\)\(2\)\(iii\)](#) - Commercial diving operations. [Subpart T](#) of part 1910;
- [1917.1\(a\)\(2\)\(iv\)](#) - Electrical. [Subpart S](#) of part 1910;
- [1917.1\(a\)\(2\)\(v\)](#) - Grain handling facilities. [Subpart R](#), § [1910.272](#);
- [1917.1\(a\)\(2\)\(vi\)](#) - Hazard communication. [Subpart Z](#), § [1910.1200](#);
- [1917.1\(a\)\(2\)\(vii\)](#) - Ionizing radiation. [Subpart Z](#), § [1910.1096](#);
- [1917.1\(a\)\(2\)\(viii\)](#) - Noise. [Subpart G](#), § [1910.95](#);
- [1917.1\(a\)\(2\)\(ix\)](#) - Nonionizing radiation. [Subpart G](#), § [1910.97](#);

- [1917.1\(a\)\(2\)\(x\)](#) - *Respiratory protection. Subpart I, § 1910.134;*
- [1917.1\(a\)\(2\)\(xi\)](#) - *Safety requirements for scaffolding. Subpart D, § 1910.28;*
- [1917.1\(a\)\(2\)\(xii\)](#) - *Servicing multi-piece and single piece rim wheels. Subpart N, § 1910.177;*
- [1917.1\(a\)\(2\)\(xiii\)](#) - *Toxic and hazardous substances. Subpart Z* applies to marine cargo handling activities except for the following:
  - [1917.1\(a\)\(2\)\(xiii\)\(A\)](#) - When a substance or cargo is contained within a sealed, intact means of packaging or containment complying with *Department of Transportation or International Maritime Organization requirements*; <sup>1</sup>
  - [1917.1\(a\)\(2\)\(xiii\)\(B\)](#) - *Bloodborne pathogens, § 1910.1030;*
  - [1917.1\(a\)\(2\)\(xiii\)\(C\)](#) - *Carbon monoxide, § 1910.1000* [See [§ 1917.24\(a\)](#)]; and
  - [1917.1\(a\)\(2\)\(xiii\)\(D\)](#) - *Hydrogen sulfide, § 1910.1000* [See [§ 1917.73\(a\)\(2\)](#)]; and
  - [1917.1\(a\)\(2\)\(xiii\)\(E\)](#) - *Hexavalent chromium § 1910.1026* (See [§ 1915.1026](#))
- [1917.1\(a\)\(2\)\(xiv\)](#) - *Powered industrial truck operator training, Subpart N, § 1910.178(1) - operator training.*

[1917.1\(b\)](#) - *Section 1915.1026* applies to any occupational exposures to *hexavalent chromium* in workplaces covered by this part.

## **1917.5 - Compliance Duties Owed to Each Employee**

**Scope:** This [standard](#) provide the compliance duties owed to employees.

**Special Requirements:** Personal protective equipment, training, training program, compliance duty, affected employee

[1917.5\(a\)](#) - *Personal protective equipment.* Standards in this part requiring the employer to provide *personal protective equipment (PPE)*, including *respirators* and other types of *PPE*, because of hazards to employees impose a separate *compliance duty* with respect to each employee covered by the requirement. The employer must provide *PPE* to each employee required to use the *PPE*, and each failure to provide *PPE* to an employee may be considered a separate violation.

[1917.5\(b\)](#) - *Training.* Standards in this part requiring *training* on hazards and related matters, such as standards requiring that employees receive training or that the employer train employees, provide *training* to employees, or institute or implement a *training*



program, impose a separate *compliance duty* with respect to each employee covered by the requirement. The employer must *train* each *affected employee* in the manner required by the standard, and each failure to *train* an employee may be considered a separate violation.

## **Subpart B - Marine Terminal Operations**

Subpart B provides the requirements for housekeeping (i.e., clear of debris, access and egress unobstructed), eliminating slippery conditions, slinging (i.e., no riding hooks, use of tag lines, hoisting), stacking of cargo and pallets (i.e., ensure stability), coopering (i.e., repair and reconditioning of cargo packaging), line handling (i.e., grab lines, rails, safe access), railroad facilities (i.e., chocking, use of dockboards, safeguarding employees, use of powered industrial trucks, posted warning signs, opening railcar doors), and log handling (i.e., support, hoisting, stacking, bunks, securing).

To learn if subpart B applies to you, go to [Does "Subpart B - Marine Terminal Operations" Apply to You?](#)

### **Special Requirements**

#### **1917.13 – Slinging**

**Scope:** This [standard](#) provides the requirements for slinging.

**Special Requirements:** References other standards

[1917.13\(g\)](#) - Intermodal containers shall be handled in accordance with [§1917.71\(f\)](#) - *terminals handling intermodal containers or roll-on roll-off operations.*

#### **1917.17 - Railroad Facilities**

**Scope:** This standard provides the requirements pertaining to railroad facilities.

**Special Requirements:** Controls, special precautions, operators, warning signs, posted

[1917.17\(g\)](#) - The employer shall institute all necessary *controls* during railcar movement to safeguard personnel. If winches or capstans are employed for movement, employees shall stand clear of the hauling rope and shall not stand between the rope and the cars.

[1917.17\(h\)](#) - Before being opened fully, doors shall be opened slightly to ensure that the load has not shifted during transit. *Special precautions* shall be taken if the doors being opened are visibly damaged.



1917.17(l) - Operators of railcar dumps shall have an unrestricted view of dumping operations and shall have emergency means of stopping movement.

1917.17(n) - *Warning signs* shall be posted where doorways open onto tracks, at blind corners and at similar places where vision may be restricted.

1917.17(o) - *Warning signs* shall be posted if insufficient clearance for personnel exists between railcars and structures.

## **1917.20 - Interference With Communications**

**Scope:** This [standard](#) provides requirements relating to communications.

**Special Requirements:** Communication, warnings, instructions.

Cargo handling operations shall not be carried on when noise-producing, maintenance, construction or repair work interferes with the *communication of warnings or instructions*.

## **1917.22 - Hazardous Cargo**

**Scope:** This [standard](#) provides requirements pertaining to hazardous cargo.

**Special requirements:** Inform, special precautions, instruct, designated person, notify, supervision, methods, determine

*Hazardous cargo*, material, substance or atmosphere means:

1. Any substance listed in 29 CFR part 1910, [Subpart Z](#);
2. Any material in the Hazardous Materials Table and Hazardous Materials Communications Regulations of the Department of Transportation, [49 CFR part 172](#);
3. Any article not properly described by a name in the Hazardous Materials Table and Hazardous Materials Communications Regulations of the Department of Transportation, 49 CFR part 172 but which is properly classified under the definition of those categories of dangerous articles given in [49 CFR Part 173](#); or
4. Any atmosphere with an oxygen content of less than 19.5%.

1917.22(a) - Before cargo handling operations begin, the employer shall ascertain whether any hazardous cargo is to be handled and shall *determine* the nature of the hazard. The employer shall *inform* employees of the nature of any hazard and any *special precautions* to be taken to prevent employee exposure, and shall *instruct* employees to *notify* him of any leaks or spills.

**1917.22(c)** - If hazardous cargo is spilled or if its packaging leaks, employees shall be removed from the affected area until the employer has ascertained the specific hazards, provided any equipment, clothing and ventilation and fire protection equipment necessary to eliminate or protect against the hazard, and has *instructed* cleanup employees in a *safe method* of cleaning up and disposing of a spill and handling and disposing of leaking containers. Actual cleanup or disposal work shall be conducted under the *supervision of a designated person*.

## **1917.23 - Hazardous Atmospheres and Substances**

**Scope:** This [standard](#) provides the requirements for hazardous atmospheres and substances.

**Special Requirements:** Determination, designated person, attendant, test(s), results, personal protective equipment, records, respirators, posted, instructed, warning signs, monitor, observers, references other standards

[Hazardous cargo](#), material, substance or atmosphere means:

1. Any substance listed in 29 CFR part 1910, [Subpart Z](#);
2. Any material in the Hazardous Materials Table and Hazardous Materials Communications Regulations of the Department of Transportation, [49 CFR part 172](#);
3. Any article not properly described by a name in the Hazardous Materials Table and Hazardous Materials Communications Regulations of the Department of Transportation, 49 CFR part 172 but which is properly classified under the definition of those categories of dangerous articles given in [49 CFR Part 173](#); or
4. Any atmosphere with an oxygen content of less than 19.5%.

**1917.23(a)** - Purpose and scope. This section covers areas in which the employer is aware that a hazardous atmosphere or substance may exist, except where one or more of the following sections apply: [§1917.22 Hazardous cargo](#); [§1917.24 Carbon monoxide](#); [§1917.25 Fumigants, pesticides, insecticides and hazardous preservatives](#); [§1917.73 Terminal facilities handling menhaden and similar species of fish](#); [§1917.152 Welding, cutting, and heating \(hot work\)](#); and [§1917.153 Spray painting](#).

**1917.23(b) - Determination of hazard.**

- [1917.23\(b\)\(1\)](#) - When the employer is aware that a room, building, vehicle, railcar, or other space contains or has contained a hazardous atmosphere, a *designated and*

*appropriately equipped person shall test the atmosphere before employee entry to determine whether a hazardous atmosphere exists.*

- 1917.23(b)(2) - *Records of results of any tests required by this section shall be maintained for at least *thirty (30) days*.*

1917.23(c) - *Testing during ventilation.* When mechanical ventilation is used to maintain a safe atmosphere, *tests shall be made by a designated person to ensure that the atmosphere is not hazardous.*

1917.23(d) - *Entry into hazardous atmospheres.* Only *designated persons* shall enter hazardous atmospheres, in which case the following shall apply:

- 1917.23(d)(1) - *Persons entering a space containing a hazardous atmosphere shall be protected by *respiratory and emergency protective equipment* meeting the requirements of Subpart E - *personal protection*, of this part;*
- 1917.23(d)(2) - *Persons entering a space containing a hazardous atmosphere shall be instructed in the nature of the hazard, *precautions* to be taken, and the use of *protective and emergency equipment*. Standby observers, similarly equipped and *instructed*, shall continuously *monitor* the activity of employees within such space;*
- 1917.23(d)(3) - *Except for emergency or rescue operations, employees shall not enter into any atmosphere which has been identified as flammable or oxygen deficient (less than 19.5% oxygen). Persons who may be required to enter flammable or oxygen deficient atmospheres in emergency operations shall be *instructed* in the dangers *attendant* to those atmospheres and *instructed* in the use of *self-contained breathing apparatus*, which shall be utilized.*
- 1917.23(d)(4) - *To prevent inadvertent employee entry into spaces that have been identified as having hazardous, flammable or oxygen deficient atmospheres, appropriate *warning signs* or equivalent means shall be *posted* at all means of access to those spaces.*

1917.23(e) - *When the packaging of asbestos cargo leaks, spillage shall be cleaned up by *designated employees* protected from the harmful effects of asbestos as required by §1910.1001 of this chapter.*

## **1917.24 - Carbon Monoxide**

**Scope:** This standard provides the requirements pertaining to carbon monoxide.



**Special Requirements:** Exposure limits, testing, designated person, instruments, exposure, determine, records, certified, references other standards

1917.24(a) - *Exposure limits.* The carbon monoxide content of the atmosphere in a room, building, vehicle, railcar, or any enclosed space shall be maintained at not more than 50 parts per million (ppm) (0.005%) as an eight hour average area level and employees shall be removed from the enclosed space if the carbon monoxide concentration exceeds a ceiling of 100 ppm (0.01%).

1917.24(b) - *Testing.* Tests to determine carbon monoxide concentration shall be made when necessary to ensure that employee exposure does not exceed the *limits* specified in paragraph (a) of this section.

1917.24(c) - *Instrumentation.* Tests for carbon monoxide concentration shall be made by designated persons using gas detector tube units certified by NIOSH under 30 CFR part 11 or other measuring instruments whose accuracy is as great or greater.

1917.24(d) - *Records.* A record of the date, time, location and results of carbon monoxide tests shall be available for at least *thirty (30) days*.

## **1917.25 - Fumigants, Pesticides, Insecticides and Hazardous Preservatives**

**Scope:** This [standard](#) provides the requirements pertaining to fumigants, pesticides, insecticides and hazardous preservatives (see also § 1917.2 Hazardous cargo, material, substance or atmosphere).

**Special Requirements:** Designated person, written warranty, determine, instruct(ed), signs, records, demonstrate, post, tests, results, inspection, precautions, PPE, respiratory protection, monitor, information, precautions, references other standards

Hazardous cargo, material, substance or atmosphere means:

1. Any substance listed in 29 CFR part 1910, [Subpart Z](#);
2. Any material in the Hazardous Materials Table and Hazardous Materials Communications Regulations of the Department of Transportation, [49 CFR part 172](#);
3. Any article not properly described by a name in the Hazardous Materials Table and Hazardous Materials Communications Regulations of the Department of Transportation, 49 CFR part 172 but which is properly classified under the definition of those categories of dangerous articles given in [49 CFR Part 173](#); or

4. Any atmosphere with an oxygen content of less than 19.5%.

1917.25(a) - At any time that the concentration in any space reaches the level specified as hazardous by the fumigant manufacturer or by Table Z-1 of 29 CFR 1910.1000, whichever is lower, all employees shall be removed from the space and shall not be permitted to re-enter until such time as *tests demonstrate* that the atmosphere is safe.

1917.25(b) - *Tests to determine* the atmospheric concentration of chemicals used to treat cargo shall be: [Reference paragraph (b)(1) - (3)].

1917.25(c) - *Results of any tests* shall be available for at least 30 days. Such *records* may be entered on any retrievable medium, and shall be available for *inspection*.

1917.25(d) - Chemicals shall only be applied to cargoes by *designated persons*.

1917.25(e) - Only *designated persons* shall enter hazardous atmospheres, in which case the following provisions apply.

- 1917.25(e)(1) - Persons entering a space containing a hazardous atmosphere shall be protected by *respiratory and emergency protective equipment* meeting the requirements of Subpart E - personal protection, of this part; and
- 1917.25(e)(2) - Persons entering a space containing a hazardous atmosphere shall be *instructed* in the nature of the hazard, precautions to be taken, and the use of *protective and emergency equipment*. Standby observers, similarly equipped and *instructed*, shall continuously *monitor* the activity of employees within such a space.

1917.25(f) - *Signs* shall be clearly posted where fumigants, pesticides or hazardous preservatives have created a hazardous atmosphere. These *signs* shall note the danger, identify specific chemical hazards, and give appropriate *information and precautions*, including *instructions* for the emergency treatment of employees affected by any chemical in use.

1917.25(g) - In the case of containerized shipments of fumigated tobacco, the contents of the container shall be aerated by opening the container doors for a period of 48 hours after the completion of fumigation and prior to loading. When tobacco is within shipping cases having polyethylene or similar bag liners, the aeration period shall be 72 hours. The employer shall obtain a *written warranty* from the fumigation facility stating that the appropriate aeration period has been met.

## **1917.26 - First Aid and Lifesaving Facilities**

**Scope:** This [standard](#) provides the requirements for first aid and lifesaving facilities.

**Special Requirements:** Instruct, report, first aid kit, first aid certificate, checked, marked, determined, lifesaving equipment, approved, certified, communication

[1917.26\(a\)](#) - Employers shall *instruct* employees to *report* every injury, regardless of severity, to the employer.

[1917.26\(b\)](#) - A *first aid kit* shall be available at the terminal, and at least one person holding a *valid first aid certificate* shall be at the terminal when work is in progress.

[1917.26\(c\)](#) - *First aid kit.* First aid kits shall be weatherproof and shall contain individual sealed packages for each item that must be kept sterile. The contents of each kit shall be *determined by a person certified* in first aid and cognizant of the hazards found in marine cargo handling operations. The contents shall be *checked* at intervals that allow prompt replacement of expended items.

[1917.26\(d\)\(7\)](#) - Stretchers in permanent locations shall be mounted to prevent damage and shall be protected from the elements if located out-of-doors. If concealed from view, closures shall be *marked* to indicate the location of the *life saving equipment*.

[1917.26\(e\)](#) - Telephone or equivalent means of *communication* shall be readily available.

[1917.26\(f\)](#) - A *U.S. Coast Guard approved* 30-inch (76.2 cm) life ring, with at least 90 feet (27.43m) of line attached, shall be available at readily accessible points at each waterside work area where the employees' work exposes them to the hazard of drowning. Employees working on any bridge or structure leading to a detached vessel berthing installation shall wear *U.S. Coast Guard approved personal flotation devices* except where protected by railings, nets, or safety belts and lifelines. A readily available portable or permanent ladder giving access to the water shall also be provided within 200 feet (61 m) of such work areas.

## **1917.27 – Personnel**

**Scope:** This [standard](#) provides requirements for personnel qualifications.

**Special Requirements:** Qualifications, instructions, determined, signal code, machine operators, signs, notices, operating instructions, trained/training, designated person, supervised, accident prevention course, supervisory duties, references other standards

[1917.27\(a\)](#) - *Qualifications of machinery operators.* [Reference [paragraph \(a\)\(1\) - \(2\)](#)].

- [1917.27\(a\)\(1\)](#) - Only those employees *determined* by the employer to be competent by reason of *training or experience*, and who understand the *signs, notices and operating instructions* and are *familiar* with the *signal code* in use shall be permitted

to operate a crane, winch or other power operated cargo handling apparatus, or any power operated vehicle, or give *signals* to the *operator* of any hoisting apparatus.

Exception: Employees being *trained and supervised by a designated person* may operate such machinery and give *signals to operators during training*.

#### 1917.27(b) - Supervisory accident prevention proficiency.

- 1917.27(b)(1) - After October 3, 1985 immediate *supervisors* of cargo-handling operations of more than five (5) persons shall satisfactorily complete a *course in accident prevention*. Employees newly assigned to *supervisory duties* after that date shall be required to meet the provisions of this paragraph within *ninety (90) days* of such assignment.
- 1917.27(b)(2) - The *course* shall consist of *instruction* suited to the particular operations involved.<sup>[3]</sup>

### **1917.29 - Retention of DOT Markings, Placards and Labels**

**Scope:** This standard provides the requirements pertaining to DOT markings, placards and labels.

**Special Requirements:** Marked, labeled, placarded, references other standards

1917.29(a) - Any employer who receives a package of hazardous material which is required to be *marked, labeled or placarded* in accordance with the *U. S. Department of Transportation's Hazardous Materials Regulations* (49 CFR parts 171 through 180) shall retain those *markings, labels and placards* on the package until the packaging is sufficiently cleaned of residue and purged of vapors to remove any potential hazards.

1917.29(b) - Any employer who receives a freight container, rail freight car, motor vehicle, or transport vehicle that is required to be *marked or placarded* in accordance with the *Hazardous Materials Regulations* shall retain those *markings and placards* on the freight container, rail freight car, motor vehicle or transport vehicle until the hazardous materials which require the *marking or placarding* are sufficiently removed to prevent any potential hazards.

1917.29(c) - *Markings, placards and labels* shall be maintained in a manner that ensures that they are readily visible.

1917.29(d) - For non-bulk packages which will not be reshipped, the provisions of this section are met if a label or other acceptable *marking* is affixed in accordance with the *Hazard Communication Standard* (29 CFR 1910.1200).

1917.29(e) - For the purposes of this section, the term "hazardous material" and any other terms not defined in this section have the same definition as in the *Hazardous Materials Regulations* ([49 CFR parts 171 through 180](#)).

## 1917.30 - Emergency Action Plans

**Special Requirements:** Emergency action plan, elements, in writing, warning, procedures, designated actions, duties, alarm system, communicate, evacuation (procedures), training/train, review, written plan, references other standards

1917.30(a) - *Emergency action plans.*

- 1917.30(a)(1) - Scope and application. This paragraph (a) requires all employers to develop and implement an *emergency action plan*. <sup>[3a]</sup> *The emergency action plan* shall be *in writing* (except as provided in paragraph (a)(5)(iv) of this section) and shall cover those *designated actions* employers and employees must take to ensure employee safety from fire and other emergencies.
- 1917.30(a)(2) - *Elements.* The following elements, at a minimum, shall be included in the plan: [Reference paragraph (a)(2)(i) - (vi)].
- 1917.30(a)(3) - *Alarm system.* The employer shall establish an *employee alarm system* that provides *warning* for necessary *emergency action* and for reaction time for safe escape of employees from the workplace or the immediate work area.
- 1917.30(a)(4) - *Evacuation.* The employer shall establish the types of *evacuation* to be used in emergency circumstances.
- 1917.30(a)(5) - *Training.*
  - 1917.30(a)(5)(i) - Before implementing the *emergency action plan*, the employer shall *designate and train* a sufficient number of persons to assist in the safe and orderly emergency evacuation of employees.
  - 1917.30(a)(5)(ii) - The employer shall *review the plan* with each employee covered by the *plan* at the following times: [Reference paragraph (a)(5)(ii)(A) - (C)].
  - 1917.30(a)(5)(iii) - The employer shall *review* with each employee upon initial assignment those parts of the plan that the employee must know to protect the employee in the event of an emergency. The *written plan* shall be kept at the workplace and be made available for *employee review*.

- [1917.30\(a\)\(5\)\(iv\)](#) - Employers with 10 or fewer employees may *communicate the plan orally* to employees and need not maintain a *written plan*.

## **Subpart C - Cargo Handling Gear and Equipment**

[Subpart C](#) provides the standards for cargo handling gear and equipment.

To learn if this subpart applies to you, go to [Does "Subpart C - Cargo Handling Gear and Equipment" Apply to You?](#)

### **Special Requirements**

#### **1917.41 - House Falls**

**Scope:** This [standard](#) provides the requirements pertaining to house falls.

**Special Requirements:** Designated employees, inspect

[1917.41\(c\)](#) - *Designated employees shall inspect chains, links, shackles, swivels, blocks and other loose gear used in house fall operations before each day's use. Defective gear shall not be used.*

#### **1917.42 - Miscellaneous Auxiliary Gear**

**Scope:** This [standard](#) provides the requirements for auxiliary gear.

**Special Requirements:** Inspect/inspection, authorized representative, determine, qualified supervision, proof load, designated person, rated capacity, removal, manufacturer's recommended ratings, recommendations, safe working loads, test certificates, heat treatment certificates, designated areas, design safety factor, proof test, certified, accredited, references other standards

[1917.42\(a\)](#) - *Routine inspection.* [Reference [paragraph \(a\)\(1\) - \(3\)](#)].

- [1917.42\(a\)\(1\)](#) - At the completion of each use, loose gear such as slings, chains, bridles, blocks and hooks shall be so placed as to avoid damage to the gear. Loose gear shall be *inspected* and any defects corrected before reuse.
- [1917.42\(a\)\(2\)](#) - All loose gear shall be *inspected* by the employer or his *authorized representative* before each use and, when necessary, at intervals during its use, to ensure that it is safe. Any gear which is found upon such *inspection* to be visibly unsafe shall not be used until it is made safe.

[1917.42\(b\)](#) - Wire rope and wire rope slings.

- 1917.42(b)(1) - The employer shall ascertain and adhere to the *manufacturer's recommended ratings* for wire rope and wire rope slings and shall have such *ratings available for inspection*. When the manufacturer is unable to supply such ratings, the employer shall use the *tables* for wire rope and wire rope slings found in American National Safety Standard for Slings, ANSI B30.9-1971. A *design safety factor* of at least five shall be maintained for the common sizes of running wire used as falls, in purchases or in such uses as light load slings. Wire rope with a *safety factor* of less than five may be used only: [Reference paragraph (b)(1)(i) - (iii)].
- 1917.42(b)(4) - Where wire rope clips are used to form eyes, the employer shall adhere to the *manufacturers' recommendations*, which shall be made available for *inspection*. If "U" bolt clips are used and the *manufacturers' recommendations* are not available, Table C-1 shall be used to *determine* the number and spacing of the clips. "U" bolts shall be applied with the "U" section in contact with the dead end of the rope.

1917.42(c) - Natural fiber rope.

- 1917.42(c)(1) - The employer shall ascertain the *manufacturers' ratings* for the specific natural fiber rope used and have such *ratings available for inspection*. The *manufacturers' ratings* shall be adhered to and a minimum *design safety factor* of five maintained.

1917.42(d) - Synthetic rope.

- 1917.42(d)(1) - The employer shall adhere to the *manufacturers' ratings and use recommendations* for the specific synthetic fiber rope used and shall make such *ratings available for inspection*.

1917.42(e) - *Removal* of natural and synthetic rope from service. Natural and synthetic rope having any of the following defects shall be *removed* from service: [Reference paragraph (e)(1) - (7)].

1917.42(g) - Synthetic web slings.

- 1917.42(g)(1) - Slings and nets or other combinations of more than one piece of synthetic webbing assembled and used as a single unit (synthetic web slings) shall not be used to hoist loads in excess of the sling's *rated capacity*.
- 1917.42(g)(2) - Synthetic web slings shall be *removed* from service if they exhibit any of the following defects: [Reference paragraph (g)(2)(i) - (vi)].

- [1917.42\(g\)\(3\)](#) - Defective synthetic web slings *removed from service* shall not be returned to service unless repaired by a *sling manufacturer* or similar entity. Each repaired sling shall be *proof tested* by the repairer to twice the *slings' rated capacity* prior to its return to service. The employer shall retain a *certificate of the proof test* and make it *available for examination*.
- [1917.42\(g\)\(4\)](#) - Synthetic web slings provided by the employer shall only be used in accordance with the *manufacturer's use recommendations*, which shall be *available*.

[1917.42\(h\)](#) - Chains and chain slings used for hoisting.

- [1917.42\(h\)\(1\)](#) - The employer shall adhere to the *manufacturer's recommended ratings* for safe working loads for the sizes of wrought iron and alloy steel chains and chain slings used and shall have such *ratings available*. When the manufacturer is unable to provide such *ratings*, the employer shall use the *tables* for chains and chain slings found in *American National Safety Standard for Slings, ANSI B30.9-1971*.
- [1917.42\(h\)\(3\)\(i\)](#) - Sling chains, including end fastenings, shall be *inspected* for visible defects before each day's use and as often as necessary during use to ensure integrity of the sling.
- [1917.42\(h\)\(3\)\(ii\)](#) - Thorough *inspections* of chains in use shall be made quarterly to detect wear, defective welds, deformation or increase in length or stretch. The month of *inspection* shall be indicated on each chain by color of paint on a link or by other equally effective means.
- [1917.42\(h\)\(3\)\(iii\)](#) - Chains shall be *removed* from service when maximum allowable wear, as indicated in [Table C-2](#), is reached at any point of link.
- [1917.42\(h\)\(3\)\(iv\)](#) - Chain slings shall be *removed* from service when stretch has increased the length of a *measured section* by more than five percent; when a link is bent, twisted or otherwise damaged; or when a link has a raised scarf or defective weld.
- [1917.42\(h\)\(3\)\(v\)](#) - Only *designated persons* shall *inspect* chains used for slinging and hoisting.
- [1917.42\(h\)\(4\)](#) - Chains shall be repaired only under *qualified supervision*. Links or portions of chain defective under any of the criteria of [paragraph \(h\)\(3\)\(ii\)](#) of this section shall be replaced with properly dimensioned links or connections of material similar to those of the original chain. Before repaired chains are returned to

service, they shall be tested to the *proof load recommended* by the manufacturer of the original chain. Tests shall be performed by the manufacturer or shall be *certified by an agency accredited* for the purpose under [part 1919](#) - gear certifications, of this chapter. *Test certificates* shall be available for *inspection*.

- [1917.42\(h\)\(5\)](#) - Wrought iron chains in constant use shall be annealed or normalized at intervals not exceeding six months. *Heat treatment certificates* shall be available for *inspection*. Alloy chains shall not be annealed.
- [1917.42\(h\)\(8\)](#) - Chain slings shall bear *identification of size, grade and rated capacity*.

[1917.42\(i\)\(1\)](#) - If available, the *manufacturer's recommended safe working loads* for shackles shall not be exceeded. In the absence of *manufacturer's recommendations*, [Table C-3](#) shall apply.

[1917.42\(j\)](#) - Hooks other than hand hooks.

- [1917.42\(j\)\(1\)](#) - The *manufacturers' recommended safe working loads* for hooks shall not be exceeded. Hooks other than hand hooks shall be tested in accordance with [§ 1917.50\(c\)\(6\)](#).

[1917.42\(k\)\(2\)](#) - Damaged pallets shall be stored in *designated areas* and identified.

## 1917.43 - Powered Industrial Trucks

**Scope:** This [standard](#) provides the requirements for PITs.

**Special Requirements:** Written approval, professional engineer, authorized, plates, tags, designed, decals, consulted, label, capacity, maintenance, testing laboratory, designated person, approved, references other standards

[1917.43\(b\)](#) - General. [Reference [paragraph \(b\)\(1\) - \(12\)](#)].

- [1917.43\(b\)\(1\)](#) - After October 3, 1983, modifications, such as adding counterweights, that might affect the vehicle's *capacity or safety* shall not be performed without either the manufacturer's prior *written approval or the written approval of a professional engineer* experienced with the equipment who has *consulted* with the manufacturer, if available. Capacity, operation and *maintenance instruction plates, tags or decals* shall be changed to conform to the equipment as modified.
- [1917.43\(b\)\(2\)](#) - Unauthorized personnel shall not ride on powered industrial trucks. A safe place to ride shall be provided when riding is *authorized*.

1917.43(c) - Maintenance. [Reference [paragraph \(c\)\(1\) - \(6\)](#)].

- 1917.43(c)(1) - Only *designated persons* shall perform *maintenance* and *repair*.

1917.43(d) - Approved trucks. [Reference [paragraph \(d\)\(1\) - \(3\)](#)].

- 1917.43(d)(2) - *Approved trucks* acquired and used after February 15, 1972, shall bear a *label or other identification* indicating *testing laboratory approval*.

1917.43(e)(3) - Forks. Forks, fork extensions and other attachments shall be secured so that they cannot be accidentally dislodged, and shall be used only in accordance with the *manufacturer's recommendations*.

1917.43(e)(6) - Lifting of employees. Employees may be elevated by fork lift trucks only when a platform is secured to the lifting carriage or forks. The platform shall meet the following requirements: [Reference [paragraph \(e\)\(6\)\(i\) - \(vi\)](#)].

- 1917.43(e)(6)(i) - The platform shall have a railing complying with [§ 1917.112\(c\) - guarding of edges](#).
- 1917.43(e)(6)(ii) - The platform shall have toeboards complying with [§ 1917.112\(d\) - guarding of edges](#), if tools or other objects could fall on employees below.

1917.43(f) - Bulk cargo-moving vehicles. [Reference [paragraph \(f\)\(1\) - \(3\)](#)].

- 1917.43(f)(2) - Guards and their attachment points shall be so *designed* as to be able to withstand, without excessive deflection, a load applied horizontally at the operator's shoulder level equal to the drawbar pull of the machine.

## **1917.44 - General Rules Applicable to Vehicles**

**Scope:** This [standard](#) provides the general rules applicable to vehicles.

**Special Requirements:** Designated areas, signs, direct, posted, training, charts, manuals, maintenance, precautions, manufacturer instructions, demonstrated, procedures, signals, warn, written traffic instructions, warning mirror systems, references other standards

1917.44(a) - The requirements of this section apply to general vehicle use within marine terminals. **Exception:** The provisions of [paragraphs \(c\)](#) and [\(l\)](#) of this section do not apply when preempted by applicable *regulations of the Department of Transportation*.<sup>[5]</sup>

1917.44(b) - Private vehicle parking in marine terminals shall be allowed only in *designated areas*.

1917.44(d) - The employer shall direct motor vehicle operators to comply with any *posted speed limits* and other *traffic control signs or signals, and written traffic instructions*.

1917.44(e) - *Stop signs* shall be *posted* at main entrances and exits of structures where visibility is impaired, and at blind intersections, unless direct traffic control or *warning mirror systems or other systems* of equivalent safety are provided.

1917.44(g) - The employer shall *direct* vehicle drivers to *warn* employees in traffic lanes of the vehicle's approach.

1917.44(h) - *Signs* indicating pedestrian traffic shall be clearly *posted* at vehicular check-in and check-out lines and similar locations where employees may be working.

1917.44(j) - No unattended vehicle shall be left with its engine running unless secured against movement (see § 1917.43(b)(3) for powered industrial trucks).

1917.44(o) - Servicing multi-piece and single piece rim wheels. Servicing of multi-piece and single piece rim wheels is covered by § 1910.177 of this chapter. [See § 1917.1(a)(2)(xii)].

- 1917.44(o)(3) - *Employee training.*
  - 1917.44(o)(3)(i) - Only employees *trained in the procedures* required in paragraph (o)(4) of this section and who have demonstrated their ability to service multi-piece rim wheels shall be assigned such duties.
  - 1917.44(o)(3)(ii) - Employees assigned such duties shall have *demonstrated* their ability by the safe performance of the following tasks: [Reference paragraph (o)(3)(ii)(A) - (G)].
- 1917.44(o)(4) - *Servicing procedures.* The following *procedures* shall be followed: [Reference paragraph (o)(4)(i) - (ix)].
- 1917.44(o)(5) - *Charts and manuals.*
  - 1917.44(o)(5)(i) - The employer shall provide a *chart* containing as a minimum the instructions and information provided in the *United States Department of Transportation, National Highway Traffic Safety Administration (NHTSA) publication "Safety Precautions for Mounting and Demounting Tube-Type Truck/Bus Tires" and "Multi-Piece Rim Wheel Matching Chart,"* and pertinent to the type(s) of multi-piece rim wheels being serviced. The *chart* shall be available in the terminal's service area.<sup>[6]</sup>

- 1917.44(o)(5)(ii) - A current *rim manual* containing the *manufacturer's instructions* for mounting, demounting, *maintenance and safety precautions* relating to the multi-piece rim wheels being serviced shall be available in the terminal's service area.
- 1917.44(o)(8)(i) - Only tools recommended in the *rim manual* for the type of wheel being serviced shall be used to service multi-piece rim wheels.
- 1917.44(o)(8)(ii) - Wheel components shall not be interchanged except as provided in the applicable *chart or manual*.

## 1917.45 - Cranes and Derricks

**Scope:** This standard provides the requirements for cranes and derricks. (See also 1917.50 - Certification of Marine Terminal Material Handling Devices)

**Special Requirements:** Ratings, rating chart, capacity ratings, precautions, warnings, warning signs, posted, rated loads, engineering design, analysis, approved, manufacturer's approval, certificating, competent, operating controls, marked, communication system, communications, designated person, inform, records, design specifications, instructions, instruct, inspections, signalman, operator, maintenance, safety factor, audible warning, monitor weather, report findings, fire extinguisher, procedures, references other standards

### 1917.45(b) - Ratings.

- 1917.45(b)(1) - Except for bridge cranes covered by paragraph (g) of this section, cranes and derricks having *ratings* that vary with boom length, radius (outreach) or other variables shall have a durable *rating chart* visible to the operator, covering the complete range of the *manufacturer's (or design) capacity ratings*. The *rating chart* shall include all operating radii (outreach) for all permissible boom lengths and jib lengths as applicable, with and without outriggers, and alternate *ratings* for optional equipment affecting such *ratings*. *Precautions or warnings* specified by the owner or manufacturer shall be included along with the *chart*.
- 1917.45(b)(2) - The *manufacturer's (or design) rated loads* for the conditions of use shall not be exceeded.
- 1917.45(b)(3) - Designated working loads shall not be increased beyond the *manufacturer's ratings or original design limitations* unless such increase receives the *manufacturer's approval*. When the manufacturer's services are not available or where the equipment is of foreign manufacture, *engineering design*

analysis shall be performed or *approved by a person accredited for certificating the equipment under [part 1919](#) - gear certification*, of this chapter. *Engineering design analysis* shall be performed by a *registered professional engineer competent in the field of cranes and derricks*. Any structural changes necessitated by the change in *rating* shall be carried out.

[1917.45\(c\)](#) - Radius indicator. When the *rated load* varies with the boom radius, the crane or derrick shall be fitted with a boom angle or radius indicator visible to the operator.

[1917.45\(f\)\(1\)\(i\)](#) - Crane and derrick operating controls shall be *clearly marked*, or a *chart* indicating their function shall be *posted* at the operator's position.

[1917.45\(f\)\(4\)\(ii\)](#) - If more than 20 feet (6.1 m) in height, vertical ladders shall comply with [§ 1917.118\(d\)](#), [\(e\)\(1\)](#), [\(e\)\(2\)\(iii\)](#), and [\(e\)\(2\)\(iv\)](#) - *fixed ladders*

[1917.45\(f\)\(4\)\(iii\)](#) - Stairways on cranes shall be equipped with rigid handrails meeting the requirements of [§ 1917.112\(e\)](#) - *guarding of edges*.

[1917.45\(f\)\(4\)\(iv\)](#) - If the top of a ladder or stairway or any position thereof is located where a moving part of a crane, such as a revolving house, could strike an employee ascending or descending the ladder or stairway, a *prominent warning sign* shall be *posted* at the foot of the ladder or stairway. A *system of communication* (such as a buzzer or bell) shall be established and maintained between the foot of the ladder or stairway and the operator's cab.

[1917.45\(f\)\(6\)](#) - Counterweights or ballast. Cranes shall be operated only with the specified type and amount of ballast or counterweights. Ballast or counterweight shall be located and secured only as provided in the *manufacturer's or design specifications*, which shall be available.

[1917.45\(f\)\(7\)](#) - Outriggers. Outriggers shall be used according to the *manufacturers' specifications or design data*, which shall be available. Floats, when used, shall be securely attached to the outriggers. Wood blocks or other support shall be of sufficient size to support the outrigger, free of defects that may affect safety and of sufficient width and length to prevent the crane from shifting or toppling under load.

[1917.45\(f\)\(9\)](#) - Electrical equipment shall be so located or enclosed that live parts will not be exposed to accidental contact. *Designated persons* may work on energized equipment only if necessary during *inspection, maintenance, or repair*.

[1917.45\(f\)\(10\)](#) - *Fire extinguisher*. [Reference [paragraph \(f\)\(10\)\(i\) - \(ii\)](#)].

1917.45(g)(2) - *Rated load marking.* The rated loads of bridge cranes shall be plainly *marked* on each side of the crane and in the cab. If there is more than one hoisting unit, each hoist shall have its *rated load marked* on it or on its load block. *Marking* shall be legible from the ground level.

1917.45(g)(3)(ii) - The wind indicating device shall provide a *visible or audible warning* to alert the operator of high wind conditions. That *warning* shall be transmitted whenever the following circumstances are present: [Reference paragraph (g)(3)(ii)(A) - (B)].

1917.45(g)(3)(iii) - *Instructions.* The employer shall *post operating instructions* for high wind conditions in the operator's cab of each crane. Operators shall be directed to comply with these instructions. The *instructions* shall include *procedures* for responding to high wind alerts and for any coordination necessary with other cranes.

1917.45(g)(5) - The employer shall *monitor local weather conditions* by subscribing to a weather service or using equally effective means.

1917.45(g)(9) - *Warning devices.* Rail-mounted cranes shall be equipped with an effective travel warning device which shall be used to *warn* employees who may be in the path of the moving crane.

1917.45(g)(10) - *Communications.* Means of *communication* shall be provided between the operator's cab and the base of the gantry of all rail-mounted cranes. This requirement may be met by *telephone, radio, sound-signaling system* or other effective methods, but not solely by hand-signaling.

1917.45(i)(1) - *Use of cranes together.* When two or more cranes hoist a load in unison, a *designated person* shall direct the operation and *instruct* personnel in positioning, rigging of the load and movements to be made.

1917.45(j) - *Protection for employees being hoisted.* [Reference paragraph (j)(1) - (10)].

- 1917.45(j)(1)(iii)(A) - Enclosed by a railing or other means providing protection equivalent to that described in § 1917.112(c) - *guarding of edges.* If equipped with open railings, the platform shall be fitted with toe boards;
- 1917.45(j)(1)(iii)(B) - Having a *safety factor* of four based on ultimate strength;
- 1917.45(j)(1)(iii)(C) - Bearing a *plate or permanent marking* indicating maximum *load rating*, which shall not be exceeded, and the weight of the platform itself;
- 1917.45(j)(4) - Platforms or devices used to hoist employees shall be *inspected* for defects before each day's use and shall be removed from service if defective.

- [1917.45\(j\)\(5\)](#) - Employees being hoisted shall remain in continuous sight of and *communication* with the operator or signalman.

[1917.45\(k\)](#) - *Routine inspection.*

- [1917.45\(k\)\(1\)](#) - *Designated persons* shall visually *inspect* each crane and derrick on each day of use for defects in functional operating components and shall *report* any defect found to the employer. The employer shall *inform* the operator of the *findings*.
- [1917.45\(k\)\(2\)](#) - A *designated person* shall thoroughly *inspect* all functional components and accessible structural features of each crane or device at *monthly intervals*.
- [1917.45\(k\)\(3\)](#) - Any defects found during such *inspections* which may create a safety hazard shall be corrected before further equipment use. Repairs shall be performed only by *designated persons*.
- [1917.45\(k\)\(4\)](#) - A *record of monthly inspections* shall be *maintained* for six months in or on the crane or derrick or at the terminal.

## **1917.46 - Load Indicating Devices**

**Scope:** This [standard](#) provides the requirements for load indicating devices.

**Special Requirements:** Recommended by manufacturer, marking, precautions, conversion chart, operator, determine/determination, certified, certification survey, operating instructions, rated load, references other standards

[1917.46\(a\)\(1\)\(iii\)](#) - The device shall permit the *operator* to *determine*, before making any lift, that the indicating or substitute system is operative. In the alternative, if a device is so mounted or attached to preclude such a *determination*, it may not be used unless it has been *certified by the manufacturer* to remain operable within the limits stated in [paragraph \(a\)\(1\)\(ii\)](#) of this section for a specific period of use. Checks for accuracy, using known values of load, shall be performed at the time of every certification survey ([see § 1917.50 - certification of marine terminal material handling devices](#)) and at such additional times as may be *recommended* by the manufacturer.

[1917.46\(a\)\(1\)\(v\)](#) - *Marking* shall be conspicuously placed giving: units of measure in pounds or both pounds and kilograms, capacity of the indicating system, accuracy of the indicating system, and *operating instructions and precautions*. In the case of systems utilizing indications other than actual weights, the *marking* shall include *data* on: the means of measurement, capacity of the system, accuracy of the system, and *operating instructions and precautions*. If the system used provides no

readout, but is such as to automatically cease crane operation when the *rated load* limit under any specific condition of use is reached, *marking* shall be provided giving the make and model of the device installed, a *description* of what it does, how it is operated, and any necessary *precautions* regarding the system. All weight indications, other types of loading indications, and other data required shall be readily visible to the *operator*.

[1917.46\(a\)\(1\)\(vii\)](#) - When the device uses the radius as a factor in its use or in its operating indications, the indicated radius (which may be in feet and/or meters, or degrees of boom angle, depending on the system used) shall be a figure which is within the range of a figure no greater than 110 percent of the actual radius to a figure which is no less than 97 percent of the actual (true) radius. A *conversion chart* shall be provided whenever it is necessary to convert between degrees of radius and feet or meters.

[1917.46\(a\)\(1\)\(viii\)\(A\)](#) - Of trolley equipped bridge type or overhead type while handling intermodal containers known to be identified as empty, or loaded, and in either case in compliance with the provisions of [§ 1917.71](#) - *terminals handling intermodal containers or roll-on roll-off operations*, or while hoisting other lifts by means of a lifting beam supplied by the crane manufacturer for the purpose, and in all cases within the crane rating;

[1917.46\(a\)\(1\)\(viii\)\(D\)](#) - While the crane is used exclusively to handle cargo or equipment the total actual gross weight of which is known by means of *marking* of the unit or units hoisted, when such total actual gross weight never exceeds 11,200 lbs., and when 11,200 lbs., is less than the *rated capacity* of the crane at the maximum outreach that is possible under the conditions of use at the time.

## **1917.47 – Winches**

**Scope:** This standard provides the requirements pertaining to winches.

**Special Requirements:** Identifiable, references other standards

[1917.47\(b\)](#) - Winches shall have clearly *identifiable* and readily accessible stop controls.

[1917.47\(e\)](#) - The provisions of [§ 1917.45\(f\)\(11\)](#) - *cranes and derricks*, shall apply to winches.

## **1917.48 – Conveyors**

**Scope:** This standard provides the requirements pertaining to conveyors.



**Special Requirements:** Locked out, tagged, testing, safe practices, maintenance, direct, designated persons, direct

1917.48(i) - *Lockout/Tagout.*

- 1917.48(i)(1) - Conveyors shall be stopped and their power sources *locked out and tagged out* during *maintenance*, repair, and servicing, unless power is necessary for *testing*.
- 1917.48(i)(2) - The starting device shall be *locked out and tagged out* in the stop position before an attempt is made to remove the cause of a jam or overload of the conveying medium, unless it is necessary to have the power on to remove the jam.

1917.48(j) - *Safe practices.*

- 1917.48(j)(1) - Only *designated persons* shall operate, repair or service powered conveyors.
- 1917.48(j)(2) - The employer shall *direct* employees to stay off operating conveyors.

## **1917.49 - Spouts, Chutes, Hoppers, Bins, and Associated Equipment**

**Scope:** This standard provides the requirements for spouts, chutes, hoppers, bins, and associated equipment.

**Special Requirements:** Inspected, communication, certification, locked out, tagged, designated person, notify, standby attendant, rescue, references other standards

1917.49(a) - Standing and running rigging and associated gear used as a permanent part of spouts, chutes or similar devices shall be *inspected* before each use and shall not be used if it has any functional defects. (See also § 1917.50(c)(2) for *certification* requirements.)

1917.49(b) - Direct *communication* shall be provided between the discharge or shipboard control end of loading spouts and chutes and the point in the terminal from which the flow of cargo is controlled.

1917.49(h)(2) - The power supply to the equipment carrying the cargo to the bin shall be turned off, *locked out and tagged*.

1917.49(i) - Before an employee enters a bin containing a bulk commodity such as coal or sugar, the employer shall ensure that: [Reference paragraph (i)(1) - (4)].

- 1917.49(i)(1) - Personnel controlling the flow of cargo into the bin have been *notified* of the entry;

- 1917.49(i)(2) - The power supply to the equipment carrying the cargo to the bin is turned off, *locked out and tagged*.
- 1917.49(i)(4) - A *standby attendant* equipped to perform a *rescue* is continuously stationed outside the bin until the employee has left the bin.

1917.49(k) - Chutes and hoppers shall be repaired only by *designated persons*.

1917.49(l)(1) - Before power shoveling operations begin, a *designated person* shall *inspect* the equipment to be used. The *inspection* shall include at least the eye bolts, wires, and sheaves.

1917.49(l)(3) - Before adjustments are made to a power shovel, wire, or associated equipment, the power supply to the shovel shall be turned off, *locked out, and tagged*, the belt stopped, and the hopper closed.

## **1917.50 - Certification of Marine Terminal Material Handling Devices**

**Scope:** This standard provides the requirements certification of marine terminal material handling devices (See also mandatory appendix I - *Special Cargo Gear and Container Spreader Test Requirements of this part*).

**Special Requirements:** Certificated, accredited, documents, certification surveys, tested, certification procedures, manufacturer specifications, registered professional engineer, warranty, load test, designated, competent, inspection, marked, references other standards

1917.50(a) - The employer shall not use any material handling device listed in paragraph (c) of this section until he has ascertained that the device has been *certificated*, as evidenced by *current and valid documents* attesting to compliance with the requirements of paragraph (b) of this section.

- 1917.50(a)(1) - *Certification surveys* are to be completed for the conditions of use found at the time such surveys are completed, with the understanding that equipment owners/users can change the configurations of the equipment according to the *manufacturer's specifications* without affecting the established *certification* status for the equipment.
- 1917.50(a)(2) - In cases of foreign manufactured cranes, there shall be an *owner's warranty* that the design is adequate for the intended use. The warranty shall be based on a thorough examination of the *design specifications by a registered professional engineer* familiar with the equipment.

1917.50(b) - The *certifications* required by this section shall be performed:

- 1917.50(b)(1) - In accordance with part 1919 - *gear certifications*, of this chapter, by persons then currently accredited by the *Occupational Safety and Health Administration* as provided in that part; or
- 1917.50(b)(2) - In accordance with standards established and enforced by the state in which the device is located or by a political subdivision thereof, which have been found by the Secretary to be compatible with part 1919 - *gear certifications*, of this chapter, by persons *designated as competent* to perform such *certification by competent state authority* and recognized as such by the Secretary.

1917.50(c) - The marine terminal material handling devices listed below shall be *certificated* in the following manner: [Reference paragraph (c)(1) - (6)].

1917.50(d) - Disassembly and reassembly of equipment does not require recertification of the equipment provided that the equipment is reassembled and used in a manner consistent with its *certification*.

1917.50(e) - For equipment *certificated* in accordance with paragraph (b)(2) of this section and transferred to a job site in another state, the *current certification* shall remain valid until the next *inspection or examination* becomes due.

1917.50(f) - *Certification procedures* shall not be construed as a substitute for, or cause for elimination of, normal *operational inspection and maintenance* routine throughout the year.

1917.50(g)(1) - Every unit of equipment requiring *quadrennial certification* shall have had such *quadrennial certification* within the previous 48 months. Equipment requiring *annual certification* shall have had such *annual certification* within the previous 12 months, except that no *annual certification* is required within 12 months after any required *quadrennial certification*. *Annual examinations for certification* may be accomplished up to one month early without effect on subsequent due dates.

1917.50(g)(2) - When *certificated* equipment is out of service for 6 months or more beyond the due date of a *certification inspection*, *an examination* equivalent to an *initial certification*, including unit *proof load test*, shall be performed before the equipment re-enters service.

1917.50(h) - Loose gear obtained after October 3, 1983 shall bear a legible mark indicating that it has been *tested* (see paragraph (c)(6) of this section). Single sheave blocks shall be *marked* with safe working loads and *proof test loads*. Marks relating to *testing* shall be identifiable on the related *certificates*, which shall be available.

[1917.50\(i\)](#) - Safe working load.

- [1917.50\(i\)\(2\)](#) - All cargo handling gear provided by the employer with a safe working load greater than five short tons (10,000 lbs. or 4.54 metric tons) shall have its safe working load plainly *marked* on it.

[1917.50\(j\)](#) - Exceptions: The *certification* requirements of this section do not apply to the following equipment: [Reference [paragraph \(j\)\(1\) - \(3\)](#)].

## **Subpart D - Specialized Terminals**

[Subpart D](#) provides the standards for specialized terminals.

To learn if Subpart D applies to you, go to [Does "Subpart D - Specialized Terminals" Apply to You?](#)

## **Special Requirements**

### **1917.70 – General**

**Scope:** This [standard](#) provide the general requirements for specialized terminals.

**Special Requirements:** References other standards

The provisions of this [Subpart D](#) shall apply to specialized terminals in addition to any other applicable requirements of this part.

### **1917.71 - Terminals Handling Intermodal Containers or Roll-on Roll-off Operations**

**Scope:** This [standard](#) provides the requirements for terminals handling intermodal containers or roll-on roll-off operations.

**Special Requirements:** Marked, maximum cargo weight, inform, equipment operator, signalman, methods of identification, cargo plans, manifests, markings, recorded, posted weights, determined, public authority, direct, supervisor/foreman, PPE, tested, identified, designed, competent authority, certificated, certificate, safety-related work practices and procedures, inspected/inspection, system, qualified engineer, safe work zone, manufacturer's recommendations, written transport plan, procedures, shipping documents, communication, coordination, references other standards

[1917.71\(a\)](#) - Every intermodal container shall be legibly and permanently *marked* with: [Reference [paragraph \(a\)\(1\) - \(3\)](#)].

1917.71(b) - No container shall be hoisted by any crane or derrick unless the following conditions have been met:

- 1917.71(b)(1) - The employer shall ascertain from the carrier whether a container to be hoisted is loaded or empty. Empty containers shall be *identified* before loading or discharge in such a manner as will inform every supervisor and foreman on the site and in charge of loading or discharging, or every crane or other *hoisting equipment operator and signalman*, if any, that such container is empty. *Methods of identification* may include *cargo plans, manifests or markings* on the container.
- 1917.71(b)(2) - In the case of a loaded container:
  - 1917.71(b)(2)(i) - The actual gross weight shall be *plainly marked* so as to be visible to the crane or other *hoisting equipment operator or signalman*, or to every *supervisor and foreman* on the site and in charge of the operation; or
  - 1917.71(b)(2)(ii) - The *cargo stowage plan* or equivalent *permanently recorded* display serving the same purpose, containing the actual gross weight and the serial number or other positive *identification* of that specific container, shall be provided to the crane or other *hoisting equipment operator and signalman*, if any, and to every *supervisor and foreman* on the site and in charge of the operation.
- 1917.71(b)(4)(ii) - If the terminal has no scales, the actual gross weight may be *calculated* on the basis of the container's contents and the container's empty weight. The weights used in the calculation shall be *posted conspicuously* on the container, with the *name of the person* making the *calculation and the date*.
- 1917.71(b)(6) - Closed dry van containers carrying vehicles are exempted from paragraph (b)(4) of this section provided that: [Reference paragraph (b)(6)(i) - (iii)].
  - 1917.71(b)(6)(ii) - The container is *marked* on the outside in such a manner that an employee can readily discern that the container is carrying vehicles; and
- 1917.71(b)(7) - The weight of loaded inbound containers from foreign ports shall be *determined* by weighing or by the *method of calculation* described in paragraph (b)(4)(ii) of this section or by *shipping documents*.
- 1917.71(b)(8) - Any scale used within the United States to weigh containers for the purpose of the requirements of this section shall meet the accuracy standards of the *state or local public authority* in which the scale is located.

1917.71(c) - No container or containers shall be hoisted if their actual gross weight exceeds the *weight marked* as required in paragraph (a)(2) of this section, or if it exceeds the *capacity* of the crane or other hoisting device intended to be used.

1917.71(d)(1) - *Marked or designated areas* shall be set aside within a container or roll-on roll-off terminal for passage of employees to and from active cargo transfer points, except where transportation to and from those points is provided by the employer.

1917.71(d)(2) - The employer shall *direct* employees to stay clear of the area beneath a suspended container.

1917.71(e) - Each employee working in the immediate area of container handling equipment or in the terminal's traffic lanes shall wear a *high visibility vest* (or equivalent protection).<sup>[7]</sup>

1917.71(f)(2)(i) - When using intermodal container spreaders that employ lanyards for activation of load disengagement, all possible *precautions* shall be taken to prevent accidental release of the load.

1917.71(f)(2)(ii) - Intermodal container spreader twistlock systems shall be *designed* and used so that a suspended load cannot accidentally be released.

1917.71(f)(4) - After July 27, 1998, flat bed, low boy trailers (mafis) and other similar equipment used to transport containers shall be *marked* with their cargo capacities and shall not be overloaded.

1917.71(f)(5) - Each tractor shall have all brake air lines connected when pulling trailers equipped with air brakes and shall have the brakes *tested* before commencing operations.

1917.71(g)(1) - Intermodal containers shall be *inspected* for defects in structural members or fittings before handling.

1917.71(g)(2) - Any intermodal container found to be unsafe shall be *identified* as such, promptly *removed from service and repaired* before being returned to service.

1917.71(i)(1) - Each employee involved in VTL operations shall be *trained and competent in the safety-related work practices, safety procedures*, and other requirements in this section that pertain to their respective job assignments.

1917.71(i)(3) - Before the lift begins, the employer shall ensure that the two containers lifted as part of a VTL are empty.

Note to paragraph (i)(3): The lift begins immediately following the end of the prelift

required by [paragraph \(i\)\(5\)](#) of this section. Thus, the weight may be determined during the prelift using a *load indicating device* meeting [§ 1917.46\(a\)\(1\)\(i\)\(A\)](#) on the crane being used to lift the VTL.

[1917.71\(i\)\(7\)](#) - VTL operations may not be conducted when the wind speed exceeds the lesser of: [Reference [paragraph \(i\)\(7\)\(i\) - \(ii\)](#)].

- [1917.71\(i\)\(7\)\(ii\)](#) - The *crane manufacturer's recommendation* for maximum wind speed.

[1917.71\(i\)\(8\)](#) - The employer shall ensure that each interbox connector used in a VTL operation: [Reference [paragraph \(i\)\(8\)\(i\) - \(vi\)](#)].

- [1917.71\(i\)\(8\)\(iv\)](#) - Has been *tested and certificated by a competent authority authorized under § 1918.11* of this chapter (for interbox connectors that are part of a vessel's gear) or [§ 1917.50](#) (for other interbox connectors):
- [1917.71\(i\)\(8\)\(v\)](#) - Has a *certificate* that is available for *inspection* and that attests that the interbox connector meets the strength criteria given in [paragraph \(i\)\(8\)\(iv\)](#) of this section; and
- [1917.71\(i\)\(8\)\(vi\)](#) - Is *clearly and durably marked* with its safe working load for lifting and an *identifying number or mark* that will enable it to be associated with its *test certificate*.

[1917.71\(i\)\(9\)](#) - The employer shall ensure that each container and interbox connector used in a VTL and each corner casting to which a connector will be coupled is *inspected* immediately before use in the VTL. [Reference [paragraph \(i\)\(9\)\(i\) - \(vii\)](#)].

[1917.71\(j\)](#) - Transporting vertically coupled containers.

- [1917.71\(j\)\(1\)](#) - Equipment other than cranes used to transport vertically connected containers shall be either specifically *designed* for this application or evaluated by a *qualified engineer and determined* to be capable of operating safely in this mode of operation.
- [1917.71\(j\)\(2\)](#) - The employer shall develop, implement, and maintain a *written plan* for transporting vertically connected containers. The *written plan* shall establish procedures to ensure safe operating and turning speeds and shall address all conditions in the terminal that could affect the safety of VTL-related operations, including *communication and coordination* among all employees involved in these operations.

[1917.71\(k\)](#) - *Safe work zone*. The employer shall establish a *safe work zone* within which employees may not be present when vertically connected containers are in motion.  
[Reference [paragraph \(k\)\(1\) - \(2\)](#)].

- [1917.71\(k\)\(2\)](#) - The *written transport plan* required by [paragraph \(j\)\(2\)](#) of this section shall include the *safe work zone and procedures* to ensure that employees are not in this zone when a VTL is in motion.

## **1917.73 - Terminal Facilities Handling Menhaden and Similar Species of Fish**

**Scope:** This [standard](#) provides the requirements pertaining to terminal facilities handling menhaden and similar species of fish.

**Special Requirements:** Respiratory protective equipment, labeled, PPE, rescue services, instructed, supervisory personnel, rescue procedures, safety measures, informed, plant superintendent, foreman, trained, references other standards

[Hazardous cargo](#), material, substance or atmosphere means:

1. Any substance listed in 29 CFR part 1910, [Subpart Z](#);
2. Any material in the Hazardous Materials Table and Hazardous Materials Communications Regulations of the Department of Transportation, [49 CFR part 172](#);
3. Any article not properly described by a name in the Hazardous Materials Table and Hazardous Materials Communications Regulations of the Department of Transportation, 49 CFR part 172 but which is properly classified under the definition of those categories of dangerous articles given in [49 CFR Part 173](#); or
4. Any atmosphere with an oxygen content of less than 19.5%.

[1917.73\(c\)](#) - At least four units of *respiratory protective equipment* consisting of supplied-air respirators or *self-contained breathing apparatus* complying with the requirements of [§ 1910.134](#) of this chapter shall be available in a suitably *labeled* cabinet for immediate use in case of emergency caused by oxygen deficiency or hydrogen sulfide. Any employee entering a tank in an emergency shall, in addition to respiratory protective equipment, wear a *lifeline and safety harness* to facilitate *rescue*. At least two other employees, similarly equipped, shall be continuously stationed outside the tank to observe and to provide *rescue services*.

1917.73(d) - The *plant superintendent and foremen* shall be *trained* and knowledgeable about the hazards of hydrogen sulfide and oxygen deficiency. They shall be *trained* in the use of appropriate *respiratory and other protective equipment, and in rescue procedures*. Other *supervisory* plant personnel shall be *informed* of these hazards and *instructed* in the necessary *safety measures*, including use of *respiratory and rescue equipment*.

1917.73(e) - *Supervisory* personnel shall be on hand at dockside to supervise discharging of bailwater from vessels.

## **Subpart E - Personal Protection**

Subpart E provides the standards for personal protection including eye and face protection, respiratory protection, head protection, foot protection, other protective measures and payment for protective equipment.

To learn if Subpart E applies to you, go to [Does "Subpart E - Personal Protection" Apply to You?](#)

### **Special Requirements**

#### **1917.91 - Eye and Face protections**

**Scope:** This standard provides the requirements pertaining to eye and face protection.

**Special Requirements:** Affected employee, PPE, demonstrates, references other standards

1917.91(a)(1)(i) - The employer shall ensure that each *affected employee* uses protective *eye and face protection* devices that comply with any of the following *consensus standards*: [Reference [paragraph \(a\)\(1\)\(i\)\(A\) - \(C\)](#)].

1917.91(a)(1)(ii) - Protective *eye and face protection* devices that the employer *demonstrates* are at least as effective as protective *eye and face protection* devices that are constructed in accordance with one of the above *consensus standards* will be deemed to be in compliance with the requirements of this section.

1917.91(a)(3) - For additional requirements covering *eye protection* against radiant energy, see [§ 1917.152\(h\) - welding, cutting and heating](#).

#### **1917.92 - Respiratory Protection**

**Scope:** This [standard](#) provides the requirements for respiratory protection

**Special Requirements:** References other standards

See [§ 1917.1\(a\)\(2\)\(x\)](#). [Reference [1910.134 - respiratory protection](#)].

## 1917.93 - Head Protection

**Scope:** This [standard](#) provides the requirement for head protection.

**Special Requirements:** Affected employee, head protection, demonstrates, references other standards

[1917.93\(a\)](#) - The employer shall ensure that each *affected employee* wears a *protective helmet* when working in areas where there is a potential for injury to the head from falling objects.

[1917.93\(b\)\(1\)](#) - The employer must ensure that *head protection* complies with any of the following *consensus standards*: [Reference [paragraph \(b\)\(1\)\(i\) - \(iii\)](#)].

[1917.93\(b\)\(2\)](#) - *Head protection* devices that the employer *demonstrates* are at least as effective as *head protection* devices that are constructed in accordance with one of the above *consensus standards* will be deemed to be in compliance with the requirements of this section.

## 1917.94 - Foot Protection

**Scope:** This [standard](#) provides the requirements for foot protection.

**Special Requirements:** Affected employee, foot protection, demonstrates, references other standards

[1917.94\(a\)](#) - The employer shall ensure that each *affected employee* wears *protective footwear* when working in areas where there is a danger of foot injuries due to falling or rolling objects or objects piercing the sole.

[1917.94\(b\)\(1\)](#) - The employer must ensure that *protective footwear* complies with any of the following *consensus standards*: [Reference [paragraph \(b\)\(1\)\(i\) - \(iii\)](#)].

[1917.94\(b\)\(2\)](#) - *Protective footwear* that the employer *demonstrates* is at least as effective as *protective footwear* that is constructed in accordance with one of the above *consensus standards* will be deemed to be in compliance with the requirements of this section.

## 1917.95 - Other Protective Measures

**Scope:** This [standard](#) provides the requirements for other protective measures.

**Special Requirements:** Special protective clothing, affected employee, personal flotation devices, marked, approved, emergency facilities, references other standards

[1917.95\(a\)\(1\)](#) - Employees performing work that requires *special protective clothing* shall be directed by the employer to wear the necessary *special protective clothing*.

[1917.95\(b\)](#) - *Personal flotation devices (PFDs)*. [Reference [paragraph \(b\)\(1\) - \(3\)](#)].

- [1917.95\(b\)\(2\)](#) - *PFDs (life preservers, life jackets, or work vests)* worn by each affected employee must be *United States Coast Guard (USCG) approved* pursuant to [46 CFR part 160 \(Type I, II, III, or V PFD\)](#) and *marked* for use as a work vest, for commercial use, or for use on vessels.

[1917.95\(c\)](#) - *Emergency facilities*. When employees are exposed to hazardous substances which may require *emergency bathing, eye washing or other facilities*, the employer shall provide such facilities and maintain them in good working order.

## **1917.96 - Payment for Protective Equipment**

**Scope:** This [standard](#) provides the requirements for paying for PPE.

**Special Requirements:** PPE, payment, references other standards

[1917.96\(a\)](#) - Except as provided by [paragraphs \(b\) through \(f\)](#) of this section, the *protective equipment*, including *personal protective equipment (PPE)*, used to comply with this part, shall be provided by the employer at no cost to employees.

[1917.96\(b\)](#) - The employer is not required to pay for non-specialty *safety-toe protective footwear (including steel-toe shoes or steel-toe boots)* and *non-specialty prescription safety eyewear*, provided that the employer permits such items to be worn off the job-site.

[1917.96\(c\)](#) - When the employer provides *metatarsal guards* and allows the employee, at his or her request, to use *shoes or boots* with built-in metatarsal protection, the employer is not required to reimburse the employee for the *shoes or boots*.

[1917.96\(d\)](#) - The employer is not required to pay for: [Reference [paragraph \(d\)\(1\) - \(2\)](#)].

[1917.96\(e\)](#) - The employer must pay for replacement *PPE*, except when the employee has lost or intentionally damaged the *PPE*.

[1917.96\(f\)](#) - Where an employee provides adequate *protective equipment* he or she owns, the employer may allow the employee to use it and is not required to reimburse the employee for that equipment. The employer shall not require an employee to provide or pay for his or her own *PPE*, unless the *PPE* is excepted by [paragraphs \(b\) through \(e\)](#) of this section.

Note to [§ 1917.96](#): When the provisions of another *OSHA standard* specify whether or not the employer must *pay for specific equipment*, the *payment* provisions of that *standard* shall prevail.

## **Subpart F - Terminal Facilities**

[Subpart F](#) provides the standards related to terminal facilities including maintenance and load limits, guarding of edges, clearance heights, cargo doors, platforms, skids, elevators, escalators, manlifts, ladders, stairways, employee exits, illumination, dockboards, river banks, sanitation, signs, markings and guarding temporary hazards.

To learn if Subpart F applies to you, go to [Does "Subpart F - Terminal Facilities" Apply to You?](#)

### **Special Requirements**

#### **1917.111 - Maintenance and Load Limits**

**Scope:** This [standard](#) provides the requirements pertaining to maintenance and load limits.

**Special Requirements:** Safe load limits, posted,

[1917.111\(b\)](#) - Maximum *safe load limits*, in pounds per square foot (kilograms per square meter), of floors elevated above ground level, and pier structures over the water shall be conspicuously *posted* in all cargo areas.

[1917.111\(c\)](#) - Maximum *safe load limits* shall not be exceeded.

#### **1917.113 - Clearance Heights**

**Scope:** This [standard](#) provides the requirements for clearance heights.

**Special requirements:** Posted

Clearance heights shall be prominently *posted* where the height is insufficient for vehicles and equipment.

## 1917.115 - Platforms and Skids

**Scope:** This [standard](#) provides the requirements for platforms and skids.

**Special Requirements:** Posted, marked, safety factor, references other standards

[1917.115\(a\)](#) - Platforms and skids extending from piers, transit sheds or lofts and used for landing or hooking on drafts shall be provided at the open sides with guardrails meeting the requirements of [§ 1917.112\(c\)](#) - *guarding of edges*, or alternate means, such as nets, to protect employees against falls.

[1917.115\(c\)](#) - Platforms and skids shall be strong enough to bear the loads handled and shall be maintained in safe condition. Safe working loads, which shall be *posted or marked* on or adjacent to platforms and skids, shall have a minimum *safety factor* of five for any part, based upon maximum anticipated static loading conditions and the ultimate strength of the construction material.

## 1917.116 - Elevators and Escalators

**Scope:** This [standard](#) provides the requirements for elevators and escalators.

"[Elevator](#)" means a permanent hoisting and lowering mechanism with a car or platform moving vertically in guides and serving two or more floors of a structure. The term excludes such devices as conveyors, tiering or piling machines, material hoists, skip or furnace hoists, wharf ramps, lift bridges, car lifts and dumpers.

"[Escalator](#)" means a power-driven continuous moving stairway principally intended for the use of persons.

**Special Requirements:** Inspected, designated persons, records, results, posted, load limits

[1917.116\(e\)](#) - Elevators and escalators shall be thoroughly *inspected* at intervals not exceeding one year. Additional *monthly inspections* for satisfactory operation shall be conducted by *designated persons*. *Records of the results* of the latest annual elevator *inspections* shall be *posted* in elevators. *Records* of annual escalator *inspections* shall be *posted* in the vicinity of the escalator or be available at the terminal.

[1917.116\(g\)](#) - The elevator's or escalator's maximum *load limits* shall be *posted* and not exceeded. Elevator load limits shall be *posted* conspicuously both inside and outside of the car.

1917.116(h) - Elevators shall be operated only by *designated persons* except for automatic or door interlocking elevators which provide full shaft door closing and automatic car leveling.

## 1917.117 – Manlifts

**Scope:** This standard provides the requirements pertaining to manlifts.

**Special Requirements:** Inspections, designated person, checked, records, instructions, posted, support, maintenance, rated load, manufacturer specifications, warn, warning sign/light, references other standards

1917.117(a) - *Inspection.* Manlifts shall be *inspected monthly* by a *designated person*. Safety switches shall be *checked weekly*. Manlifts found to be unsafe shall not be operated until repaired. *Inspections* shall include at least the following: [Reference paragraph (a)(1) - (22)].

1917.117(b) - *Inspection records.* *Inspection records* shall be *kept for at least one year*. The *record* of the most recent *inspection* shall be *posted* in the vicinity of the manlift or in the terminal.

1917.117(d) - *Instructions.* Manlift use *instructions* shall be *conspicuously posted*.

1917.117(e) - *Top floor warning sign and light.* An illuminated *sign and red light* that are visible to the user shall be provided under the top floor opening of the manlift to *warn* the user to get off at that floor.

1917.117(f) - *Bottom floor warning sign.* A *sign* visible to descending passengers shall be provided to *warn* them to get off at the bottom floor.

1917.117(i) - *Emergency ladder.* A fixed emergency ladder accessible from any position on the lift and in accordance with the requirements of S 1917.118(d) - fixed ladders, shall be provided for the entire run of the manlift.

1917.117(j)(4) - Landings shall be of sufficient size and strength to *support 250 pounds* (1,112 N).

1917.117(l) - *Maintenance.* Manlifts shall be equipped, *maintained*, and used in accordance with the *manufacturer's specifications*, which shall be available at the terminal.

1917.117(o)(3) - Capable of stopping and holding the manlift when the descending side is loaded with the maximum *rated load*.

## 1917.119 - Portable Ladders

**Scope:** This [standard](#) provides the requirements for portable ladders.

**Special Requirements:** Maintenance, inspections, tagged, references other standards

[1917.119\(c\)](#) - Standards for manufactured portable ladders. Portable manufactured ladders obtained after January 21, 1998 shall bear identification indicating that they meet the appropriate ladder construction requirements of the following *standards*: [Reference [paragraph \(c\)](#)].

[1917.119\(e\)](#) - *Maintenance and inspection.*

- [1917.119\(e\)\(1\)](#) - The employer shall maintain portable ladders in safe condition. Ladders with the following defects shall not be used and either shall be *tagged* as unusable if kept on the premises or shall be removed from the worksite: [Reference [paragraph \(e\)\(1\)\(i\) - \(v\)](#)].
- [1917.119\(e\)\(2\)](#) - Ladders shall be *inspected* for defects prior to each day's use, and after any occurrence, such as a fall, which could damage the ladder.

## 1917.120 - Fixed Stairways

**Scope:** This [standard](#) provides the requirements for fixed stairways.

"[Fixed stairway](#)" means interior and exterior stairs serving machinery, tanks and equipment, and stairs to or from floors, platforms or pits. The term does not apply to stairs intended only for fire exit purposes, to articulated stairs (the angle of which changes with the rise and fall of the base support) or to stairs forming an integral part of machinery.

**Special Requirements:** References other standards

[1917.120\(b\)](#) - New installations.

- [1917.120\(b\)\(3\)](#) - Fixed stairs having four or more risers shall have stair railings or handrails complying with [§ 1917.112\(c\)\(1\)](#) - *guarding of edges*.
- [1917.120\(b\)\(5\)\(iii\)](#) - Have handrails that meet the requirements of [§ 1917.112\(c\)\(1\)](#) - *guarding of edges*, on both sides and that are not less than 30 inches (76.2 cm) in height from the tread surface at the riser face.

## 1917.121 - Spiral Stairways

**Scope:** This [standard](#) provides the requirements for spiral stairways.

**Special Requirements:** References other standards

[1917.121\(b\)\(4\)](#) - Railings shall conform to the requirements of [§ 1917.112\(c\)\(1\)](#) - *guarding of edges*. If balusters are used, there shall be a minimum of one per tread. Handrails shall be a minimum of 1 1/4 inches (3.18 cm) in outside diameter;

## **1917.122 - Employee Exits**

**Scope:** This [standard](#) provides the requirements for employee exits.

**Special Requirements:** Marked, posted, directional signs

[1917.122\(a\)](#) - Employee exits shall be clearly *marked*.

[1917.122\(b\)](#) - If an employee exit is not visible from employees' work stations, *directional signs* indicating routes to the exit shall be *posted*.

## **1917.123 – Illumination**

**Scope:** This [standard](#) provides the requirements for illumination.

**Special Requirements:** Measured, references other standards

[1917.123\(a\)](#) - Working and walking areas shall be illuminated. Unless conditions described in the *regulations of the United States Coast Guard (33 CFR 126.15(l) and (n), and 33 CFR 154.570)* exist in the case of specific operations, illumination in active work areas (for example, cargo transfer points) shall be of an average minimum light intensity of 5 foot-candles. The illumination in other work areas (for example, farm areas) shall be of an average minimum light intensity of 1 foot-candle except for security purposes when a minimum light intensity of 1/2 foot-candle shall be maintained. Where occasional work tasks require more light than that which is consistently and permanently provided, supplemental lighting shall be used.

[1917.123\(b\)](#) - The lighting intensity shall be *measured* at the task/working surface, in the plane in which the task/working surface is present.

## **1917.124 - Dockboards (car and bridge plates)**

**Scope:** This [standard](#) provides the requirements for dockboards.

**Special Requirements:** Designed, references other standards

[1917.124\(c\)\(5\)](#) - Be *designed*, constructed, and maintained to prevent vehicles from running off the edge. [\[10\]](#)

[1917.124\(d\)\(2\)](#) - Ramps shall be equipped with a guardrail meeting the requirement of [§ 1917.112\(c\)\(1\)](#) - *guarding of edges*. if the slope is more than 20 degrees to the horizontal or if employees could fall more than 4 feet (1.22 m).

## 1917.126 - River Banks

**Scope:** This [standard](#) provides the requirements for river banks.

**Special Requirements:** Posting, PFD, references other standards

[1917.126\(b\)](#) - Where working surfaces at river banks slope so steeply that an employee could slip or fall into the water, the outer perimeter of the working surface shall be protected by *posting* or other *portable protection* such as roping off. In these situations, employees must wear a *personal flotation device* meeting the requirements of [§ 1917.95\(b\)](#) - *other protective measures*.

## 1917.127 – Sanitation

**Scope:** This [standard](#) provides the requirements for sanitation.

**Special Requirements:** Sanitation facilities (e.g., washing, toilet), drinking water

[1917.127\(a\)](#) - *Washing and toilet facilities*. [Reference [paragraph \(a\)\(1\) - \(2\)](#)].

[1917.127\(b\)](#) - *Drinking water*. [Reference [paragraph \(b\)\(1\) - \(3\)](#)].

## 1917.128 - Signs and Marking

**Scope:** This [standard](#) provides the requirements for signs and markings.

**Special Requirements:** Signs, worded/words, legends, posted, phone numbers, locations (i.e., exits, emergency equipment)

[1917.128\(a\)](#) - General. Signs required by this part shall be clearly *worded* and legible, and shall contain a key *word* or *legend* indicating the reason for the *sign*.

- [1917.128\(a\)\(1\)](#) - Key *words* are such words as Danger, Warning, Caution.
- [1917.128\(a\)\(2\)](#) - *Legends* are more specific explanations such as High Voltage, Close Clearance, Pedestrian Crossing.

[1917.128\(b\)](#) - Specific. Every marine terminal shall have conspicuously *posted signs* as follows: [Reference [paragraph \(b\)\(1\) - \(4\)](#)].

## Subpart G - [Related Terminal Operations and Equipment](#)

Subpart G provides the requirements for machine guarding, welding, cutting and heating, spray painting, compressed air, air receivers, fuel handling and storage, battery charging and changing, and prohibited operations (spray painting, abrasive blasting, welding, burning operations). *Do you have any of these operations at your terminal?* If yes, click on the appropriate tabs below for more information.

To learn if Subpart G applies to you, go to [Does "Subpart G - Related Terminal Operations and Equipment" Apply to You?](#)

## Special Requirements

### 1917.151 - Machine Guarding

**Scope:** This [standard](#) provides the requirements for machine guarding.

"[Guarded](#)" means shielded, fenced, or enclosed by covers, casings, shields, troughs, spillways or railings, or guarded by position or location. Examples of guarding methods are guarding by location (positioning hazards so they are inaccessible to employees) and point of operation guarding (using barrier guards, two-hand tripping devices, electronic safety devices, or other such devices).

**Special Requirements:** Marked

[1917.151\(e\)\(5\)](#) - Radial saws. The employer shall direct that employees perform ripping and ploughing against the saw turning direction. Rotation direction and an indication of the end of the saw to be used shall be conspicuously *marked* on the hood.

### 1917.152 - Welding, Cutting and Heating

**Scope:** This [standard](#) provides the requirements for welding, cutting and heating.

**Special Requirements:** Designated person, determined, designated locations, tested/test, determined, precautions, fire extinguishing equipment, instruct, assigned, person in charge, determine, tagged, distinguishable, inspected, PPE, respirators, emergency aid, communication, references other standards

"[Hot work](#)" means riveting, welding, flame cutting or other fire or spark-producing operation.

[1917.152\(b\)](#) - Hot work in confined spaces. Hot work shall not be performed in a confined space until a *designated person* has *tested* the atmosphere and *determined* that it is not hazardous.

[1917.152\(c\)](#) - Fire protection. [Reference [paragraph \(c\)\(1\) - \(8\)](#)].

- [1917.152\(c\)\(1\)](#) - To the extent possible, hot work shall be performed in *designated locations* that are free of fire hazards.
- [1917.152\(c\)\(2\)](#) - When hot work must be performed in a location that is not free of fire hazards, all necessary *precautions* shall be taken to confine heat, sparks, and slag so that they cannot contact flammable or combustible material.
- [1917.152\(c\)\(3\)](#) - *Fire extinguishing equipment* suitable for the location shall be immediately available and shall be maintained in readiness for use at all times.
- [1917.152\(c\)\(4\)](#) - When the hot work operation is such that normal fire prevention *precautions* are not sufficient, additional personnel shall be *assigned* to guard against fire during hot work and for a sufficient time after completion of the work to ensure that no fire hazard remains. The employer shall *instruct* all employees involved in hot work operations as to potential fire hazards and the use of *firefighting equipment*.
- [1917.152\(c\)\(6\)](#) - When openings or cracks in flooring cannot be closed, precautions shall be taken to ensure that no employees or flammable or combustible materials on the floor below are exposed to sparks dropping through the floor. Similar *precautions* shall be taken regarding cracks or holes in walls, open doorways and open or broken windows.
- [1917.152\(c\)\(7\)](#) - Hot work shall not be performed: [Reference [paragraph \(c\)\(7\)\(i\) - \(iii\)](#)].
  - [1917.152\(c\)\(7\)\(ii\)](#) - On or in equipment or tanks that have contained flammable gas or liquid or combustible liquid or dust-producing material, until a *designated person* has *tested* the atmosphere inside the equipment or tanks and *determined* that it is not hazardous; or
  - [1917.152\(c\)\(7\)\(iii\)](#) - Near any area in which exposed readily ignitable materials such as bulk sulfur, baled paper or cotton are stored. Bulk sulfur is excluded from this prohibition if suitable *precautions* are followed, the *person in charge* is knowledgeable and the person performing the work has been *instructed* in preventing and extinguishing sulfur fires.
  - [1917.152\(c\)\(8\)\(i\)](#) - Drums, containers or hollow structures that have contained flammable or combustible substances shall either be filled with water or cleaned, and shall then be ventilated. A *designated person* shall *test* the atmosphere and *determine* that it is not hazardous before hot work is performed on or in such structures.

1917.152(d)(2) - Use of fuel gas. Fuel gas shall be used only as follows:

- 1917.152(d)(2)(v) - Leaking fuel gas cylinder valves shall be closed and the gland nut tightened. If the leak continues, the cylinder shall be tagged, removed from service, and moved to a location where the leak will not be hazardous. If a regulator attached to a valve stops a leak, the cylinder need not be removed from the workplace but shall be *tagged* and may not be used again before it is repaired; and
- 1917.152(d)(2)(vi) - If a plug or safety device leaks, the cylinder shall be *tagged*, removed from service, and moved to a location where the leak will not be hazardous.

1917.152(d)(3) - Hose. [Reference paragraph (d)(3)(i) - (vi)].

- 1917.152(d)(3)(i) - Fuel gas and oxygen hoses shall be easily *distinguishable* from each other by color or sense of touch. Oxygen and fuel hoses shall not be interchangeable. Hoses having more than one gas passage shall not be used.
- 1917.152(d)(3)(iii) - Hose shall be *inspected* before use. Hose subjected to flashback or showing evidence of severe wear or damage shall be tested to twice the normal working pressure but not less than 200 p.s.i. (1378.96 kPa) before reuse. Defective hose shall not be used.

1917.152(d)(4)(ii) - Torches shall be *inspected* before each use for leaking shut-off valves, hose couplings and tip connections. Torches with such defects shall not be used.

1917.152(f)(2) - Hot work in confined spaces. Except as specified in paragraphs (f)(3)(ii) and (f)(3)(iii) of this section, when hot work is performed in a confined space the employer shall ensure that: [Reference paragraph (f)(2)(i) - (ii)].

- 1917.152(f)(2)(ii) - Employees in the space shall wear *supplied air respirators* in accordance with § 1910.134 - respiratory protection and a standby on the outside shall maintain *communication* with employees inside the space and shall be equipped and prepared to provide *emergency aid*.

1917.152(f)(3) - Welding, cutting or heating of toxic metals.

- 1917.152(f)(3)(i) - In confined or enclosed spaces, hot work involving the following metals shall only be performed with general mechanical or local exhaust ventilation that ensures that employees are not exposed to hazardous levels of fumes: [Reference paragraph (f)(3)(i)(A) - (C)].

- 1917.152(f)(3)(ii) - In confined or enclosed spaces, hot work involving the following metals shall only be performed with local exhaust ventilation meeting the requirements of paragraph (f)(1) of this section or by employees wearing *supplied air respirators* in accordance with § 1910.134 - *respiratory protection*;
- 1917.152(f)(3)(iii) - Employees performing hot work in confined or enclosed spaces involving beryllium-containing base or filler metals shall be protected by local exhaust ventilation and wear supplied *air respirators or self-contained breathing apparatus*, in accordance with the requirements of § 1910.134 - *respiratory protection*.
- 1917.152(f)(3)(iv) - The employer shall ensure that employees performing hot work in the open air that involves any of the metals listed in paragraphs (f)(3)(i) and (f)(3)(ii) of this section shall be protected by respirators in accordance with the requirements of § 1910.134 - *respiratory protection*, and those working on beryllium-containing base or filler metals shall be protected by *supplied air respirators*, in accordance with the requirements of § 1910.134 - *respiratory protection*.
- 1917.152(f)(3)(v) - Any employee exposed to the same atmosphere as the welder or burner shall be protected by the same type of *respiratory and other protective equipment* as that worn by the welder or burner.

1917.152(f)(4) - Inert-gas metal-arc welding. Employees shall not engage in and shall not be exposed to the inert-gas metal-arc welding process unless the following *precautions* are taken: [Reference paragraph (f)(4)(i) - (iv)].

1917.152(g) - Welding, cutting and heating on preservative coatings. [Reference paragraph (g)(1) - (3)].

- 1917.152(g)(1) - Before hot work is commenced on surfaces covered by a preservative coating of unknown flammability, a *test* shall be made by a *designated person to determine* the coating's flammability. Preservative coatings shall be considered highly flammable when scrapings burn with extreme rapidity.
- 1917.152(g)(3) - Surfaces covered with preservative coatings shall be stripped for at least 4 inches (10.16 cm) from the area of heat application or employees shall be protected by *supplied air respirators* in accordance with the requirements of § 1910.134 - *respiratory protection* of this chapter.

1917.152(h) - Protection against radiant energy. [Reference paragraph (h)(1) - (3)].

- [1917.152\(h\)\(1\)](#) - Employees shall be protected from radiant energy eye hazards by *spectacles, cup goggles, helmets, hand shields or face shields with filter lenses* complying with the requirements of this paragraph.

## 1917.153 - Spray Painting

**Scope:** This [standard](#) provides the requirements for spray painting.

**Special Requirements:** Designated areas, signs, posted, approved, references other standards

Hazardous cargo, material, substance or atmosphere means:

1. Any substance listed in 29 CFR part 1910, [Subpart Z](#);
2. Any material in the Hazardous Materials Table and Hazardous Materials Communications Regulations of the Department of Transportation, [49 CFR part 172](#);
3. Any article not properly described by a name in the Hazardous Materials Table and Hazardous Materials Communications Regulations of the Department of Transportation, 49 CFR part 172 but which is properly classified under the definition of those categories of dangerous articles given in [49 CFR Part 173](#); or
4. Any atmosphere with an oxygen content of less than 19.5%.

[1917.153\(c\)\(6\)\(i\)](#) - Spraying shall be performed only in *designated spray booths or spraying areas*.

[1917.153\(c\)\(9\)](#) - Smoking shall be prohibited and "No Smoking" signs shall be posted in spraying and paint storage areas.

[1917.153\(d\)\(4\)](#) - Filters shall be noncombustible or of an *approved* type. The same filter shall not be used when spraying with different coating materials if the combination of materials may spontaneously ignite.

[1917.153\(d\)\(10\)](#) - Original closed containers, *approved* portable tanks, *approved* safety cans or a piping system shall be used to bring flammable or combustible liquids into spraying areas.

[1917.153\(d\)\(12\)](#) - Wiring, motors and equipment in a spray booth shall be of *approved* explosion-proof type for Class I, Group D locations and conform to [Subpart S](#) - *electrical of Part 1910* of this chapter for Class I, Division 1, Hazardous Locations. Wiring, motors and equipment within 20 feet (6.1m) of any interior spraying area and not separated by vapor-tight partitions shall not produce sparks during



operation and shall conform to the requirements of [Subpart S](#) - *electrical*, of Part 1910 of this chapter for Class I, Division 2, Hazardous Locations.

## **1917.154 - Compressed Air**

**Scope:** This [standard](#) provides the requirements for compressed air.

**Special Requirements:** PPE, references other standards

Employees shall be protected by chip guarding and personal protective equipment complying with the provisions of [Subpart E](#) - *personal protection*, of this part during cleaning with compressed air. Compressed air used for cleaning shall not exceed a pressure of 30 psi. Compressed air shall not be used to clean employees.

## **1917.156 - Fuel Handling and Storage**

**Scope:** This [standard](#) provides the requirements for fuel handling and storage.

**Special Requirements:** Designated person, designated locations,

[1917.156\(a\)](#) - Liquid fuel.

- [1917.156\(a\)\(1\)](#) - Only *designated persons* shall conduct fueling operations.

[1917.156\(b\)](#) - Liquefied gas fuels.

- [1917.156\(b\)\(1\)\(i\)](#) - Liquefied gas powered equipment shall be fueled only at *designated locations*.

## **1917.157 - Battery Charging and Equipment**

**Scope:** This [standard](#) provides the requirements for battery charging and equipment.

**Special Requirements:** Designated person, designated areas

[1917.157\(a\)](#) - Only *designated persons* shall change or charge batteries.

[1917.157\(b\)](#) - Battery charging and changing shall be performed only in *areas designated* by the employer.

## **Additional Assistance for Marine Terminals**

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 [29 CFR 1917 - Marine Terminals Standards With Special Requirements](#), along with the webpages for [Which OSHA Standards Apply](#) and [OSHA Standards With Special Requirements](#).

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.

## **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.

### **Special Emphasis Programs**

#### **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.

- 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
- 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)

## North Carolina State-Specific Standards

### OSHA Standards With Special Requirements

These webpages are designed to assist employers in complying with standards that have **"special requirements"**. For the purpose of this technical guidance, special requirements includes programs, plans, procedures, policies, inspections, certifications, competent persons, qualified persons, training, medical surveillance, exposure monitoring, signs, tags, markings, tests, records and recordkeeping requirements that are applicable in meeting the requirements of OSHA standards by industry. *If a standard or subpart are not listed, it did not have one of these types of special requirements.*

**Note:** While all attempts have been made to ensure the accuracy of the content and completeness in the information provided, it may not include all the specific standards that



*have special requirements that may be required by an OSHA standard. To ensure completeness in meeting each standard's requirement, the specific standard should be referenced.*

To learn more about these special requirements, click on the tabs below.

## **Special Requirements**

This webpage is to be used in conjunction with the [Which OSHA Standards Apply](#) webpages for [North Carolina State-Specific Standards](#).

- NCGS 95-129(1) - [General Duty Clause](#)
- NCGS 95-173 through 95-218 - [Hazardous Chemical Right To Know Act](#)
- 13 NCAC 7A .0600 through .0606 - [Safety and Health Programs and Committees](#)
- 13 NCAC 07F .0501 through .0502 - [Maritime](#)
- [Additional Assistance on North Carolina State-Specific Standards](#)

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

The [NCGS 95-129\(1\)](#) - General Duty Clause is used when there isn't a standard for a recognized hazard that can cause death or serious injury or serious physical harm.

To learn if NCGS 95-129(1) applies to you, go to [Does the "General Duty Clause" Apply to You?](#)

## **Special Requirements**

### **NCGS 95-129(1) - General Duty Clause**

**Scope:** This [standard](#) is used when there isn't a standard for a recognized hazard that can cause death or serious injury or serious physical harm.

**Special Requirements:** Rights and duties, recognized

*Rights and duties of employers shall include but are not limited to the following provisions: [Reference [NCGS 95-129\(1\) - \(8\)](#)].*

- (1) Each employer shall furnish to each of his employees 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;

## **NCGS 95-173 through 95-218 - Hazardous Chemical Right To Know Act**

[NCGS 95-173 through 95-218](#) - Hazardous Chemical Right To Know Act provides the standards for the Hazardous Chemicals Right to Know Act applicable in North Carolina.

To learn if NCGS 95-173 through 95-218 applies to you, go to [Does the "Hazardous Chemical Right To Know Act" Apply to You?](#)

### **Special Requirements**

## **NCGS 95-173 through 95-218 - Hazardous Chemical Right To Know Act**

**Scope:** This [standard](#) provides the standards for the right to know about hazardous chemicals.

**Special Requirements:** Label, list, information, notify, emergency response plan, evacuation procedures, safety data sheet, updated quarterly/annually, fire chief, fire department, inspection, chemical manufacturers and distributors, in writing, written request, contingency plan, testify, prefire plan, request, written notification, inspect, commissioner of labor, complaints, investigations, credentials, administrative hearings, healthcare provider, determines, written statement, posting, confidentiality agreement, references other standards

### **§ 95-191. Hazardous Substance List.**

- (a) All employers who manufacture, process, use, store, or produce hazardous chemicals, shall compile and maintain a *Hazardous Substance List* which shall contain all of the following *information* for each hazardous chemical stored in the facility in quantities of 55 gallons or 500 pounds, whichever is greater:  
[Reference [95-191 - paragraph \(a\)\(1\) - \(3\)](#)]
  - (1) The chemical name or the common name used on the *SDS or container label*.
- (b) The *Hazardous Substance List* shall be *updated quarterly* if necessary, but not less often than annually; however, if a chemical is deleted from, or added to, the *Hazardous Substance List*, or if the quantity changes sufficiently to cause the chemical to be in a different class as defined in subsection (a) of this section, the employer shall update the *Hazardous Substance List* to reflect those changes as soon as practicable, but in any event within 30 days of such change.
  - (b1) In lieu of the *information* required by subdivisions (a)(1) through (a)(3), employers may substitute the *information* specified in [section 312\(d\)\(2\) of the Superfund Amendments and Reauthorization Act of 1986, P.L. 99-499.](#)

- (c) The *Hazardous Substance List* may be prepared for the facility as a whole, or for each area in a facility where hazardous chemicals are stored, at the option of the employer but shall include only chemicals used or stored in North Carolina.

§ 95-192. *Safety data sheets.*

- (a) *Chemical manufacturers and distributors* shall provide *safety data sheets (SDSs)* to manufacturing and nonmanufacturing purchasers of hazardous chemicals in North Carolina for each hazardous chemical purchased.
- (b) Employers shall *maintain* the most current *SDS* received from *manufacturers or distributors* for each hazardous chemical purchased. If an *SDS* has not been provided by the *manufacturer or distributor* for chemicals on the *Hazardous Substance List* at the time the chemicals are received at the facility, the employer shall *request* one in *writing* from the *manufacturer or distributor* within 30 days after receipt of the chemical. If the employer does not receive an *SDS* within 30 days after his *written request*, he shall *notify* the *Commissioner of Labor* of the failure by *manufacturer or distributor* to provide the *SDS*.

§ 95-193. *Labels.*

- Existing *labels* on incoming containers of hazardous chemicals shall not be removed or defaced. All containers of hazardous substances must be clearly designated as hazardous.

§ 95-194. *Emergency information.*

- (a) An employer who normally stores at a facility any hazardous chemical in an amount of at least 55 gallons or 500 pounds, whichever is greater, shall provide the *Fire Chief* of the *Fire Department* having jurisdiction over the facility, *in writing*, (i) the name(s) and telephone number(s) of knowledgeable representative(s) of the employer who can be contacted for further *information* or in case of an emergency and (ii) a *copy of the Hazardous Substance List*.
- (b) Each employer shall provide a *copy of the Hazardous Substance List to the Fire Chief*. The employer shall *notify the Fire Chief in writing* of any updates that occur in the previously submitted *Hazardous Substance List* as provided in G.S. 95-191(b).
- (c) The *Fire Chief* or his representative, upon request, shall be permitted on-site *inspections* at reasonable times of the chemicals located at the facility on the *Hazardous Substance List* for the sole purpose of preplanning *Fire Department* activities in the case of an emergency and insuring by *inspection* the usefulness and accuracy of the *Hazardous Substance List and labels*.
- (d) Employers shall provide to the *Fire Chief*, *upon written request* of the *Fire Chief*, a *copy of the SDS* for any chemical on the *Hazardous Substance List*.
- (e) Upon *written request of the Fire Chief*, an employer shall prepare an *emergency response plan* for the facility that includes facility evacuation procedures, a *list of*

emergency equipment available at the facility, and *copies of other emergency response plans*, such as the *contingency plan* required under rules governing the management of hazardous waste adopted pursuant to [Article 9 of Chapter 130A of the General Statutes](#). A *copy of the emergency response plan* or any *prefire plan or emergency response plan* required under applicable North Carolina or federal statute or rule or regulation shall, upon *written request by the Fire Chief*, be given to the *Fire Chief*.

- (f) The *Fire Chief* shall make *information* from the *Hazardous Substance List*, the *emergency response plan*, and *SDSs* available to members of the *Fire Department* having jurisdiction over the facility and to personnel responsible for preplanning emergency response, police, medical or fire activities, but shall not otherwise distribute or disclose (or allow the disclosure of) *information* not available to the public under G.S. 95-208. Such persons receiving such *information* shall not disclose the *information* received and shall use such *information* only for the purpose of preplanning emergency response, police, medical or fire activities.
- (g) Any knowing distribution or disclosure (or permitted disclosure) of any *information* referred to in subsection (f) of this section in any manner except as specifically permitted under that subsection (f) shall be punishable as a Class 1 misdemeanor. Restrictions concerning confidentiality or nondisclosure of information under this Article 18 shall be exemptions from the [Public Records Act contained in Chapter 132 of the General Statutes](#), and such *information* shall not be disclosed notwithstanding the provisions of *Chapter 132 of the General Statutes*.

#### § 95-195. Complaints, investigations, penalties.

- (a) *Complaints* of violations of this Part shall be *filed in writing* with the Commissioner of Labor. Such complaints received *in writing from any Fire Chief* relating to alleged violations of this Part shall be *investigated* in a timely manner by the *Commissioner of Labor* or his designated representative.
- (b) Duly designated representatives of the *Commissioner of Labor*, upon presentation of appropriate *credentials* to the employer, shall have the right of entry into any facility at reasonable times to *inspect and investigate complaints* within reasonable limits, and in a reasonable manner. Following the investigation, the *Commissioner* shall make appropriate findings. Either the employer or the person complaining of a violation may request an *administrative hearing* pursuant to *Chapter 150B of the General Statutes*. This request for an administrative hearing shall be submitted to the *Commissioner of Labor* within 14 days following the *Commissioner* making his findings. The *Commissioner* shall within 30 days of receiving the request hold an *administrative hearing* in accordance with [Article 3 of Chapter 150B of the General Statutes](#).
- (c) If the *Commissioner of Labor* finds that the employer violated this Article, the *Commissioner* shall order the employer to comply within 14 days following *receipt of written notification* of the violation. Employers not complying within 14 days following *receipt of written notification* of a violation shall be subject

to civil penalties of not more than one thousand dollars (\$1,000) per violation imposed by the *Commissioner of Labor*. There shall be a separate offense for each day the violation continues. The clear proceeds of civil penalties provided for in this section shall be remitted to the Civil Penalty and Forfeiture Fund in accordance with [G.S. 115C-457.2](#).

- (d) Any order by the *Commissioner* under subsection (b) or (c) of this section shall be subject to judicial review as provided under [Article 4 of Chapter 150B of the General Statutes](#).

§ 95-196. Employee rights.

- No employer shall discharge, or cause to be discharged, or otherwise discipline or in any manner discriminate against an employee at the facility because the employee has assisted the *Commissioner of Labor* or his representative or the *Fire Chief* or his representative who may make or is making an *inspection* under [G.S. 95-194\(c\)](#) or [G.S. 95-195\(b\)](#), or has *testified* or is *about to testify* in any proceeding under this Article, or has used the provisions of [G.S. 95-208](#).

§ 95-197. Withholding hazardous substance trade secret *information*. [Reference [95-197, paragraph \(a\) - \(d\)](#)].

§ 95-198. Medical emergency and nonemergency situations.

- (a) Where a treating *health care provider* *determines* that a medical emergency exists and the specific chemical identity of a hazardous chemical is necessary for emergency or first-aid treatment, the *chemical manufacturer, importer*, or employer shall immediately disclose the specific chemical identity of a hazardous substance trade secret substance to that treating physician or nurse, regardless of the existence of *written statement* of need or a *confidentiality agreement*. The *chemical manufacturer, importer*, or employer may require a *written statement* of need and a *confidentiality agreement* as soon as circumstances permit.
  - The *confidentiality agreement* (i) may restrict the use of the *information* to the health purposes indicated in a *written statement* of need; (ii) may provide for appropriate legal remedies in the event of a breach of the *agreement*, including stipulation of a reasonable pre-estimate of likely damages; and (iii) may not include requirements for the *posting* of a penalty bond. The parties are not precluded from pursuing noncontractual remedies to the extent permitted by law.
- (b) In nonemergency situations, a *chemical manufacturer, importer*, or employer shall, upon request, disclose a specific chemical identity, otherwise permitted to be withheld under this section, to a responsible party, as defined in the standards adopted in Title 13, Subchapter 7F of the [North Carolina Administrative Code \(13 NCAC 7F\)](#), providing medical or other occupational health services to exposed persons if the request is *in writing* and states the medical need for the *information*.

The employer may require that the responsible party sign a *confidentiality agreement* prior to release of the *information*. The parties are not precluded from pursuing noncontractual remedies to the extent permitted by law.

- (c) If the *chemical manufacturer, importer* or employer denies a *written request for hazardous substance trade secret release*, or does not provide this *information* within 30 days, the Department of Labor shall initiate the *trade secret claim determination* process under G.S. 95-197.

§ 95-208. *Community information* on hazardous chemicals.[Reference 95-208, [paragraph \(a\) - \(b\)](#)].

§ 95-217. Preemption of *local regulations*. [Reference [95-217](#)].

## **13 NCAC 7A .0600 through .0606 - [Safety and Health Programs and Committees](#)**

[13 NCAC 7A .0600 through .0606](#) - Safety and Health Programs and Committees establishes programs which promote safety and health for all North Carolina employers with a workers' compensation experience rate modifier of 1.5 or above.

To learn if 13 NCAC 7A .0600 through .0606 applies to you, go to [Does "Safety and Health Programs and Committees" Apply to You?](#)

### **Special Requirements**

## **13 NCAC 07A .0603 - Safety and Health Programs**

**Scope:** This [standard](#) provides requirements for safety and health programs.

**Special Requirements:** Safety and health programs, committee, participation, communicated, corrective action, controls, investigated, record, compliance plans, inspected, affected employees, safety committee, checklist (written), investigation, self-audit, safe work practices, marked, enforced, analyze, rules, informed, safety data sheets, statement, written findings, measured, written program, copy, retained, references other standards

(a) All *Safety and Health programs* established under [G.S. 95-251](#) for both fixed locations and non-fixed locations shall meet or exceed the requirements of [G.S. 95-251\(b\)\(1\)-\(9\)](#).

(b) The *written program* shall also include:

- (1) The manner in which managers, supervisors, and employees are responsible for implementing the *program* and how the continued *participation* of management will be established, *measured*, and maintained including specifically what the leadership role of the top employer official at the worksite shall be in regard to the *program*.
- (2) The manner in which the *plan* will be communicated to all *affected employees* so that they are *informed* of work-related hazards and *controls*.
- (3) The manner in which *safe work practices and rules* will be enforced.
- (4) The manner in which workplace accidents will be *investigated and corrective action* implemented. The employer shall keep a *comprehensive record* of accident *investigations*, findings, and corresponding *corrective action taken*.
- (5) The manner in which near-miss incidents will be *investigated*. Special emphasis will be placed on identifying all contributing factors to any near-miss incident. The employer shall keep a *comprehensive record* of each such incident and the findings relating to it, and shall keep a *record* of all corresponding *corrective action taken*.
- (6) The *methods* used to identify, *analyze* and control new or existing hazards, conditions and operations, and the manner in which changes will be incorporated into the *safety program, safety committee checklist, and communicated* to all *affected employees*.
- (7) *Written compliance plans* as required by either the *Mine Safety laws or OSHA standards*, whichever is applicable to the employer. *Written compliance plans* shall include, the following *OSHA standards*, when applicable: Excavations, Hazard Communication, Occupational Noise Exposure, Control of Hazardous Energy Sources (Lockout/Tagout), Respiratory Protection, Process Safety Management of Highly Hazardous Chemicals, Bloodborne Pathogens, Life Safety Code, Cotton Dust, and Confined Spaces.
- (8) A *written checklist* of all potential hazards to be *inspected* during the *quarterly inspections* required pursuant to [G.S. 95-252\(c\)\(4\)d](#), if applicable, including, but not limited to, checking for properly *marked* doors (including exit doors and doors not leading to an exit); properly working fire extinguishers; unlisted hazardous substances, improperly located hazardous substances, or hazardous substances for which there are no *material safety data sheets*; doorways or exit pathways that are cluttered; improperly grounded equipment and exposed live wiring and parts; and unguarded machinery. Each item on the aforementioned *written checklist* shall be *checked* during the *quarterly inspections* and a *copy of the list* shall be *retained* by the employer for not less than two years. All conditions or items deemed to be out of compliance shall be immediately abated, unless circumstances beyond the control of the employer requires a longer period of time.
- (9) The employer shall conduct an *annual self-audit* of all required *safety and health programs*. *Written findings and a statement* of remedial actions taken shall be retained for not less than two years. Companies with less than 11 employees that are not required to have *safety and health committees* shall appoint a company safety officer to conduct the *annual self-audit*.
- (10) The purpose and operation of the *Safety and Health Committee* where such *committee* exists.

- (11) The methods used to communicate requirements of the program to other employers or subcontractors and their employees who may be present at the same site.

## 13 NCAC 07A .0604 - Selection of Safety Committees

**Scope:** This [standard](#) provides the requirements for safety and health committees.

**Special Requirements:** Safety and health committees, determined, certified collective bargaining agent, nomination, ballots, employee meeting, statute, written documentation, processes, retain, collective bargaining process, election process, approved methods, references other standards

(a) An employer may elect to implement any one of the following selection processes as a means of meeting the requirements for selection of representatives to employee *Safety and Health committees* pursuant to [G.S. 95-252\(d\)](#). The employer shall *retain written documentation* outlining any utilized *selection process*. An employer whose employees are represented by a *collective bargaining* representative must utilize either subsection 8, 9, or 10 for *committee selection* purposes. Any non-management employees who choose not to participate in the *collective bargaining process* are still considered to be represented by the *collective bargaining* representative for purposes of this Rule for *committee selection* purposes.

- (1) The employer may devise and implement any means of employee selection so long as: (A) the employee representatives are selected "by and from among the employer's nonmanagement employees" as specified in the *statute*, (B) minimum numbers are met, and (C) the intent of the *statute* is satisfied.
- (2) The employer may require that all non-management employees serve on a *Safety and Health Committee*. In the instance of a small employer, there may be one committee comprised of all nonmanagement employees which serves the entire organization. In a larger organization, there may be *several committees*, each addressing one or more of the responsibilities of the *safety committee* as outlined in [G.S. 95-252](#), with employees divided among the *committees*.
- (3) The employer may conduct an election at either a *meeting* or through the distribution of *ballots*. The *election process* shall provide for the *nomination* by non-management employees (including self-nominations) of non-management employees in the numbers specified by the employer, but shall not be less than one nor more than the number of non-management members specified by *statute*. The number of non-management employees specified by *statute* receiving the most *nominations* shall serve on the *Safety and Health Committee*.
- (4) The employer may conduct an *employee meeting* at which open nominations are held and *secret ballots* are used to elect employee representatives. The meeting may be for all non-management employees or by working unit.

- (5) The employer may conduct an employee meeting at which non-management employees nominate one peer by *listing* that employee's name on a *ballot*. The *ballots* shall be tallied and the appropriate number of representatives, in the numbers required by *statute*, shall be *determined* by those employees named on the most *ballots*.
- (6) The employer may solicit *nominations* from all non-management employees for employee representatives to serve on the committee, then select representatives by lottery from among those *nominated* to obtain the statutorily appropriate number of employee representatives for the *safety and health committee*.
- (7) The employer may solicit volunteers and nominations from among the non-management employees for a pool of applicants to serve as employee representatives on the *safety committee*. (If no volunteers or nominations are received, the employer shall require that nominations be submitted from a cross section of employee work units within the establishment.) The members of the *applicant pool* shall select from among its ranks the initial employee representatives necessary to meet minimum numbers as specified in the *statute*.
- (8) Employees shall be selected to serve on a *safety and health committee(s)* in accordance with any contract that exists between a *collective bargaining* unit and the employer. Should the contract not otherwise specify selection of a *safety and health committee*, non-management members shall be selected in a manner approved by the *certified collective bargaining agent*.
- (9) Employers having more than one *collective bargaining unit* shall devise and implement a means of employee selection utilizing the provisions of the existing contracts or *methods approved* by the *certified collective bargaining agents*. *Safety committee* members shall be selected in proportionate numbers to the number of employees represented by the *certified collective bargaining agents*.
- (10) Employers having some non-management employees represented by a *collective bargaining agent or agents* and some not represented shall devise a means that utilizes language in the contract or *methods approved* by the *certified collective bargaining agent(s)* for selection of bargaining unit representatives, and one or more of the above means for selecting non-management employee members not represented by the bargaining agent(s). *Safety committee* members shall be selected in proportion to the number of employees represented by the *certified collective bargaining agent(s)* and the number of employees not represented.

## 13 NCAC 07A .0605 - Safety and Health Committee Requirements

**Scope:** This [standard](#) provides the requirements for safety committees.

**Special Requirements:** Safety and health committee, notify(ing), chairperson, general contractor, distribute information, meetings, designate, legislation, references other standards

(a) Multi-Site Employers:

- (1) Employers with 11 or more employees who do not report to a fixed or regular location worksite are required to have a *Safety and Health Committee* to represent those employees. The employer must have a separate *Safety and Health Committee* for each mobile work crew consisting of 11 or more employees.
- (2) Employers with employees who report to a fixed or regular location worksite must have a separate *safety and health committee* for each location with 11 or more employees.
  - (b) Multi-Employer Worksites: (1) At multi-employer fixed or regular location worksites, any employer required to establish a *Safety and Health Committee* pursuant to G.S. 95-252 shall *notify the general contractor or equivalent* of the requirements of this *legislation and of the chairpersons of their committee*. (2) The *general contractor or equivalent* shall *designate a representative* to attend the *Safety and Health Committee meetings* of the *notifying employer(s)*. (3) The *notifying employer* shall work with the *general contractor or equivalent* to distribute information as required by [G.S. 95-251\(b\)\(9\)](#).

## 13 NCAC 07A .0606 - Training and Education

**Scope:** This [standard](#) provides the requirements for training and education.

**Special Requirements:** Safety and health committee, training, affected employees, frequently cited violations, education, committee's duties, accident investigation, recordkeeping, procedures, system, PPE, hazard identification, safety and health programs, work practice, references other standards

(a) All *safety and health committee* members shall receive *training and education* based on the type of business activity in which the employer is involved and the scope of the *committee's duties*. At a minimum, employers shall provide *training* regarding the following: [Reference [paragraph \(a\)\(1\) - \(6\)](#)].

- (2) Principles regarding effective accident and incident *investigations*.
- (3) Employee and employer rights and responsibilities under the *Safety and Health Programs and Committees Act* ([G.S. 95-250](#) et al.) and the *Mine Safety laws or OSHANC*.
- (4) *Recordkeeping* requirements of the *North Carolina Workers' Compensation Act* ([G.S. 97-1](#) et seq.) and the *Mine Safety laws or OSHANC*. (5) The most common causes of on-the-job accidents.
- (6) The most *frequently cited violations* of either the *Mine Safety laws or OSHANC*.

(b) There shall also be established for employees whether or not a *safety and health committee* is required:

- (1) A system for training and education of all employees in occupational safety and health hazards at the worksite. The system shall contain specific requirements that new employees not be allowed to begin work, except when participating in carefully supervised on-the-job training, until thoroughly trained in the safe use of all applicable equipment and substances, and procedures relating to their workplace environment.
- (2) A system of training and education for any existing employee given a new work assignment.
- (3) A system of training and education for all affected employees when a new substance, process, procedure or piece of equipment is introduced into the workplace and presents a new hazard to safety or health.
- (4) A system of training and education for all affected employees when any new personal protective equipment or different work practice is used on existing hazards.
- (5) Training to comply with all applicable OSHA employee training requirements, including, but not limited within General Industry to Means of Egress; Powered Platforms, Manlifts, and Vehicle- Mounted Work Platforms; Occupational Health and Environmental Control; Hazardous Materials; Personal Protective Equipment; General Environmental Controls; Medical and First Aid; Fire Protection; Materials Handling and Storage; Machinery and Machine Guarding; Welding, Cutting and Brazing; Special Industries; Electrical; Commercial Diving Operations; Toxic and Hazardous Substances, and Occupational Exposure to Hazardous Chemicals in Laboratories; including, but not limited within the Construction Industry to General Safety and Health Provisions; Occupational Health and Environmental Controls; Personal Protective and Life Saving Equipment; Fire Protection and Prevention; Signs, Signals, and Barricades; Tools - Hand and Power; Welding and Cutting; Electrical; Ladders and Scaffolding; Cranes, Derricks, Hoists, Elevators and Conveyors; Motor Vehicles, Mechanized Equipment, and Marine Operations; Excavations; Concrete and Masonry Construction; Underground Construction, Caissons, Cofferdams and Compressed Air; Demolitions; Blasting and Use of Explosives; Power Transmission Distribution; Stairways and Ladders; including, but not limited within Agriculture to Roll-Over Protective Structures, and Safety for Agricultural Equipment; and including, but not limited to the Process Safety Management Standard, the Confined Spaces Standard, Hazard Communication Standard, and the Bloodborne Pathogens Standard.

(c) The required safety and health training shall be provided by someone trained to recognize, evaluate and control safety and health hazards. The training may be provided on-site or off-site.

## **13 NCAC 07F .0501 through .0502 - Maritime**



13 NCAC 07F .0501 through .0502 - Maritime states that the provisions of [1915](#) - Shipyard Employment and [1917](#) - Marine Terminals apply to public sector employees in North Carolina.

To learn if 13 NCAC 07F .0501 through .0502 - Maritime applies to you, go to [Does "Maritime" Apply to You?](#)

## Special Requirements

### 13 NCAC 07F .0501 through .0502 - Maritime

**Scope:** These standards, [.0501](#) through [.0502](#), apply to 1915 - Shipyard Employment and 1917 - Marine Terminals standards.

**Special Requirements:** References other standards

[13 NCAC 07F .0501 SHIPYARD EMPLOYMENT](#) (a) The provisions for the *Occupational Safety and Health Standards for Shipyard Employment, Title 29 of the Code of Federal Regulations Part 1915* promulgated as of October 4, 2021, and exclusive of subsequent amendments, are incorporated by reference. (b) The provisions of [29 CFR 1915](#) shall apply only to public sector employees of local governments or of the State of North Carolina.

[13 NCAC 07F .0502 MARINE TERMINALS](#) (a) The provisions of the *Occupational Safety and Health Regulations for Marine Terminals, Title 29 of the Code of Federal Regulations Part 1917*, promulgated as of March 25, 2016, and exclusive of subsequent amendments are incorporated by reference. (b) The provisions of [29 CFR 1917](#) shall apply only to public sector employees of local governments or of the State of North Carolina.

## Additional Assistance on North Carolina State-Specific Standards

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](#). In addition, the webpages for [Which OSHA Standards Apply](#) and [OSHA Standards With Special Requirements](#) can assist the employer with applicable OSHA standards and special requirements.

Example safety and health [programs \(table\)](#) of standards requiring programs, plans and procedures in general industry; [table](#) of standards requiring inspections in general industry; [table](#) of standards requiring programs, plans and procedures in



construction; [table](#) of standards requiring inspections in construction) and [presentations \(table\)](#) of standards requiring training in general industry; [table](#) of standards requiring training in construction); [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.