- (d) The employer is not required to pay for:
- (1) Everyday clothing, such as longsleeve shirts, long pants, street shoes, and normal work boots; or
- (2) Ordinary clothing, skin creams, or other items, used solely for protection from weather, such as winter coats, jackets, gloves, parkas, rubber boots, hats, raincoats, ordinary sunglasses, and sunscreen.
- (e) The employer must pay for replacement PPE, except when the employee has lost or intentionally damaged the PPE.
- (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.
- (g) This section shall become effective on February 13, 2008. Employers must implement the PPE payment requirements no later than May 15, 2008.

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.

[72 FR 64429, Nov. 15, 2007]

Subpart F—Terminal Facilities

§1917.111 Maintenance and load limits.

- (a) The structural integrity of docks, piers, wharves, terminals and working surfaces shall be maintained.
- (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.
- (c) Maximum safe load limits shall not be exceeded.
- (d) All walking and working surfaces in the terminal area shall be maintained in good repair.

$\S 1917.112$ Guarding of edges.

(a) Vehicle protection. (1) Vehicle curbs, bull rails, or other effective barriers at least six inches (15.24 cm) in

- height shall be provided at the waterside edges of aprons and bulkheads, except where vehicles are prohibited. Curbs or bull rails installed after October 3, 1983, shall be at least 10 inches (25.4 cm) in height.
- (2) The provisions of paragraph (a)(1) of this section also apply at the edge of any fixed level above the common floor area from which vehicles may fall, except at loading docks, platforms and skids where cargo is moved by vehicles.
- (b) Employee protection. (1) Guardrails shall be provided at locations where employees are exposed to floor or wall openings or waterside edges, including bridges or gangway-like structures leading to pilings or vessel mooring or berthing installations, which present a hazard of falling more than 4 feet (1.22 m) or into the water, except as specified in paragraph (b)(2) of this section.
 - (2) Guardrails are not required:
 - (i) At loading platforms and docks;
- (ii) At waterside edges used for cargo handling:
- (iii) On the working sides of work platforms, skids or similar workplaces; or
- (iv) On railroad rolling stock, highway vehicles, intermodal containers or similar equipment.
- (3) Where guardrails are impracticable due to machinery requirements or work processes, an alternate means of protecting employees from falling, such as nets, shall be used.
- (c) Criteria for guardrails. Guardrails shall meet the following criteria:
- (1) They shall be capable of withstanding a force of at least 200 pounds (890 N) applied in any direction at midspan of the top rail (when used), or at the uppermost point if there is no top rail.
- (2) If not of solid baluster, grillwork, slatted or similar construction, guardrails shall consist of top rails and midrails. Midrails, when used, shall be positioned at approximately half the height of the top rail.
- (3) The top surface of guardrails installed before October 3, 1983, shall be at least 36 inches (0.91 m) high. Those installed after October 3, 1983, shall be 42 inches (1.07 m), plus or minus 2 inches (5.1 cm), high.

- (4) Any non-rigid railing such as chain or wire rope shall have a maximum sag limit at the mid-point between posts of not more than 6 inches (15.24 cm).
- (5) Top rails shall be free of puncture and laceration hazards.
- (6) Rail ends shall not overhang to constitute a hazard, but this does not prohibit scrollwork, boxed ends or similar non-hazardous projections.
- (d) Toeboards. Toeboards shall be provided when employees below could be exposed to falling objects such as tools. Toeboards shall be at least 3½ inches (8.9 cm) in height from top edge to floor level, and be capable of withstanding a force of 50 pounds (222 N) applied in any direction. Drainage clearance under toeboards is permitted.
- (e) Stair railings. Stair railings shall be capable of withstanding a force of at least 200 pounds (890 N) applied in any direction, and shall not be more than 36 inches (0.91 m) nor less than 32 inches (0.81 m) in height from the upper top rail surface to the tread surface in line with the leading edge of the tread. Railings and midrails shall be provided at any stairway having four or more risers, as follows:
- (1) For stairways less than 44 inches (1.12 m) wide, at least one railing; and
- (2) For stairways more than 44 inches (1.12 m) but less than 88 inches (2.24 m) wide, a stair rail or handrail on each side, and if 88 or more inches wide, an additional intermediate handrail.
- (f) Condition. Railings shall be maintained free of sharp edges and in good repair.

[48 FR 30909, July 5, 1983, as amended at 62 FR 40201, July 25, 1997; 65 FR 40941, June 30, 2000]

$\S 1917.113$ Clearance heights.

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

§1917.114 Cargo doors.

- (a) Mechanically operated. (1) Cargo door counterweights shall be guarded.
- (2) Lift trucks and cranes shall not be used to move mechanically operated doors except when necessary during repair on the doors, in which case ropes or other guarding shall be provided to

- prevent entry into the area where the door may fall or slide.
- (3) Vertically operated doors partially opened for work or ventilation shall be secured to prevent accidental closing.
- (b) *Tackle operated*. (1) The door shall be connected to its lifting tackle with shackles or equally secure means.
- (2) Lifting bridles and tackles shall have a safety factor of five, based upon maximum anticipated static loading conditions.
- (3) Devices shall be provided to hold overhead doors in the open position and to secure them when closed.
- (4) Lifting gear and hardware shall be maintained in safe condition.
- (5) Lifting ropes, when used, shall be placed out of the work area and off the floor.
- (c) Horizontal sliding. (1) Horizontal sliding door rollers shall be constructed to prevent the door from jumping from overhead tracks.
- (2) Sliding doors shall be secured to prevent them from swinging.

§1917.115 Platforms and skids.

- (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) or alternate means, such as nets, to protect employees against falls.
- (b) Any employee working below a second-story platform or skid shall be protected from falling objects by a net stretched from the platform or skid to the vessel.
- (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.
- (d) The employer shall provide and maintain platform and skid attachments that will prevent accidental movement of the skid or platform.

§ 1917.116 Elevators and escalators.

- (a) "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.
- (b) "Escalator" means a power-driven continuous moving stairway principally intended for the use of persons.
- (c) No elevator or escalator with a defect which affects safety shall be used.
- (d) Elevator safety devices shall not be overridden or made inoperable.
- (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.
- (f) Elevator landing openings shall be provided with doors, gates or equivalent protection which shall be in place when the elevator is not at that landing, to prevent employees from falling into the shaft.
- (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.
- (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.
- [48 FR 30909, July 5, 1983, as amended at 49 FR 28551, July 13, 1984; 61 FR 5509, Feb. 13, 1996]

§ 1917.117 Manlifts.

- (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:
 - (1) Step fastenings;
 - (2) Rails;

- (3) Rail supports and fastenings;
- (4) Roller and slides;
- (5) Belt and belt tension;
- (6) Handholds and fastenings;
- (7) Floor landings:
- (8) Guardrails;
- (9) Lubrication;
- (10) Safety switches;
- (11) Warning signs and lights;
- (12) Illumination;
- (13) Drive pulley;
- (14) Bottom (boot) pulley and clearance:
 - (15) Pulley supports;
 - (16) Motor;
 - (17) Drive mechanism;
 - (18) Brake:
 - (19) Electrical switches;
 - (20) Vibration and misalignment;
- (21) "Skip" on up or down run when mounting the step (indicating worn gears); and
 - (22) Emergency exit ladders.
- (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.
- (c) Emergency stop. An emergency stop device shall be available within easy reach from any position on the belt.
- (d) *Instructions*. Manlift use instructions shall be conspicuously posted.
- (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.
- (f) Bottom floor warning sign. A sign visible to descending passengers shall be provided to warn them to get off at the bottom floor.
- (g) Upper limit stop. An automatic stop device shall be provided to stop the manlift when a loaded step passes the top landing, except that manlifts installed after October 3, 1983 shall have two such devices.
- (h) Handholds and steps. Each step shall be provided with a corresponding handhold.
- (i) Emergency ladder. A fixed emergency ladder accessible from any position on the lift and in accordance with the requirements of §1917.118(d) shall be provided for the entire run of the manlift.

- (j) Landings. (1) Clear and unobstructed landing spaces shall be provided at each level. Manlifts constructed after October 3, 1983 and that have a distance of 50 feet (15.24 m) or more between floor landings shall have an emergency landing every 25 feet (7.62 m) or less of manlift travel.
- (2) Open sides of emergency landings shall be protected by guardrails.
- (3) Floor landing entrances and exits shall be guarded by mazes, self-closing gates, or equivalent devices.
- (4) Landings shall be of sufficient size and strength to support 250 pounds (1.112 N).
- (k) Floor opening guards. The ascending sides of manlift floor openings shall be provided with cones or bevel guards to direct the user through the openings.
- (1) Maintenance. Manlifts shall be equipped, maintained, and used in accordance with the manufacturer's specifications, which shall be available at the terminal.
- (m) Bottom pulley. (1) The lower pulley shall be supported by the lowest landing.
- (2) Sides of the bottom pulley support shall be guarded to prevent contact with the pulley or the steps.
- (n) *Top clearance*. A clearance of at least 11 feet (3.35 m) shall be provided between the top landing and the ceiling.
- (o) *Brakes*. Manlifts shall be equipped with brakes that are:
 - (1) Self-engaging;
 - (2) Electrically released; and
- (3) Capable of stopping and holding the manlift when the descending side is loaded with the maximum rated load.
- [48 FR 30909, July 5, 1983, as amended at 65 FR 40941, June 30, 2000]

§1917.118 Fixed ladders.

- (a) Scope and applicability. This section applies to all fixed ladders except:
- (1) Ladders forming an integral part of railway cars, highway carriers, cargo containers or other transportation carrier equipment;
- (2) Climbing devices such as step bolts or structural members of tanks and towers;
- (3) Ladders built into or vertically attached to tubular scaffold framing; and

- (4) Ladders used only for fire-fighting or emergency purposes.
- (b) Definitions. (1) Cage (basket guard) means a barrier enclosing or nearly enclosing a ladder's climbing space and fastened to one or both of the ladder's side rails or to another structure.
- (2) Fixed ladder means a ladder, including individual rung ladders, permanently attached to a structure, building or piece of equipment.
- (3) Ladder safety device means a support system limiting an employee's drop or fall from the ladder, and which may incorporate friction brakes, lifelines and lanyards, or sliding attachments
- (4) Well means a permanent complete enclosure around a fixed ladder, which is attached to the walls of the well.
- (c) *Defects.* (1) Ladders with broken, split or missing rungs, steps or rails, broken welds or connections, corrosion or wastage or other defect which may affect safe use shall be removed from service.
- (2) Ladder repairs shall provide strength at least equivalent to that of the original ladder.
- (d) Ladder specifications. (1)(i) Ladders installed before October 3, 1983, shall be capable of withstanding without damage a minimum concentrated load, applied uniformly over a 3½ inch (8.9 cm) width at the rung center, of 200 pounds (890 N).
- (ii) Ladders installed after October 3, 1983 shall be capable of withstanding 250 pounds (1,112 N) applied as described in paragraph (d)(1)(i) of this section. If used by more than one employee simultaneously, the ladder as a unit shall be capable of simultaneous additional loading in 250 pound (1,112 N) increments for each additional employee, applied to a corresponding number of rungs. The unit shall have a safety factor of four (4), based on ultimate strength, in the designed service.
- (2)(i) Ladders installed before October 3, 1983, shall have rungs evenly spaced from nine to $16\frac{1}{2}$ inches (22.9 to 41.9 cm) apart, center to center.
- (ii) Ladders installed after October 3, 1983 shall have rungs evenly spaced from 12±2 inches (30.5±5.08 cm) apart, center to center.

- (3)(i) Ladders installed before October 3, 1983 shall have a width between side rails of at least 10 inches (25.4 cm).
- (ii) Ladders installed after October 3, 1983 shall have a width between side rails of at least 12 inches (30.48 cm).
- (4) The minimum distance between the rung center line and the nearest permanent object behind the rung shall be 4 inches (10.16 cm), except that in ladders installed after October 3, 1983, the minimum distance shall be 7 inches (17.78 cm) unless physical limitations make a lesser distance, not less than $4\frac{1}{2}$ inches (11.43 cm), necessary.
- (5) When a ladder passes through an opening or past overhead obstructions, a minimum 24 inch (.61 m) clearance shall exist between the climbing side and any obstruction. Where this distance is less than 30 inches (0.76 m), a deflection device shall be installed for guidance through the opening.
- (6) The side rails of ladders shall extend at least 36 inches (0.91 m) above the top landing surface, unless grab bars or equivalent holds are provided.
- (7) Ladders whose pitch exceeds 90° to the horizontal (slanting backward on the climbing side) shall not be used.
- (e) Protection against falls. (1) Fixed ladders more than 20 feet (6.1 m) in height shall be provided with a cage, well, or ladder safety device.
- (2) When a well or cage is used, ladders with length of climb exceeding 30 feet (9.14 m) shall comply with the following provisions:
- (i) The ladder shall consist of multiple sections not exceeding 30 feet (9.14 m) each;
- (ii) Each section shall be horizontally offset from adjacent sections, except as specified in paragraph (e)(2)(iv) of this section, and
- (iii) A landing platform capable of supporting a load of 100 pounds per square foot (4.79 kPa) and fitted with guardrails complying with Sec. 1917.112(c) shall be provided at least every 30 feet (9.14 m), except as specified in paragraph (e)(2)(iv) of this section
- (iv) For ladders installed after October 3, 1983, offset sections and landing platforms are not required if hinged platforms capable of supporting 100 pounds per square foot (4.79 kPa), and which are kept closed except when

- opened for passage, are within the cage or well at intervals not exceeding 30 feet (9.14 m).
- (3) Ladders equipped with ladder safety devices shall have rest platforms;
- (i) Capable of supporting a load of 100 pounds per square foot (4.79 kPa);
- (ii) Located at intervals of 150 feet (45.7 m) or less; and
- (iii) Protected by guardrails complying with §1917.112(c) of three sides.
- (4) Where used, ladder safety devices shall:
- (i) Be installed and maintained in accordance with the manufacturer's instructions, which shall be available for inspection:
- (ii) Be repaired only with replacement parts having performance capability at least equal to that of the original parts;
- (iii) Have a connection length between carrier centerlines and safety belts of 10±2 inches (25.4±5.08 cm); and
- (iv) Be installed in a manner that does not reduce the ladder's structural capability.
 - (5) Ladder cages or wells shall:
- (i) Be of rigid construction that allows unobstructed use but prevents an employee from falling through or dislodging the cage or well by falling against it:
 - (ii) Have smooth inner surfaces;
- (iii) Extend at least 36 inches (0.91m) above landings; and
- (iv) Extend to within 8 feet (2.44 m) above the ground or base, except that a maximum of 20 feet (6.1 m) is permitted where the cage or well would extend into traffic lanes.
- (6) Ladders installed after (effective date of standard) on radio, microwave communications, electrical power and similar towers, poles and structures, including stacks and chimneys, shall meet the requirements of this paragraph (e).
- (f) Individual rung ladders. Ladders consisting of individual rungs that are attached to walls, conical manhole sections or river cells shall:
- (1) Be capable of supporting a load of 350 pounds (1557 N) without deformation:
- (2) Form a continuous ladder, uniformly spaced vertically from 12 inches to 16 inches (30.5 to 40.6 cm) apart, with a minimum width of 10 inches (25.4 cm)

and projecting at least $4\frac{1}{2}$ inches (11.43 cm) from the wall;

- (3) Be so constructed that an employee's foot cannot slide off the ends; and
- (4) Be firmly attached and without sharp edges.
- $[48\ {\rm FR}\ 30909,\ {\rm July}\ 5,\ 1983,\ {\rm as}\ {\rm amended}\ {\rm at}\ 62\ {\rm FR}\ 40201,\ {\rm July}\ 25,\ 1997;\ 65\ {\rm FR}\ 40941,\ {\rm June}\ 30,\ 2000]$

§1917.119 Portable ladders.

- (a) Scope and applicability. This section applies to all portable ladders, including job-made ladders for temporary use, unless otherwise specified.
- (b) Standards for existing manufactured portable ladders. (1) Rungs of manufactured portable ladders obtained before October 3, 1983, shall be capable of supporting a 200-pound (890 N) load without deformation.
- (2) Rungs shall be evenly spaced from 9 to $16\frac{1}{2}$ inches (22.9 to 41.9 cm), center to center.
- (3) Rungs shall be continuous members between rails. Each rung of a double-rung ladder (two side rails and a center rail) shall extend the full width of the ladder.
- (4) Width between side rails at the base of the ladder shall be at least 12 inches (30.48 cm) for ladders 10 feet (3.05 m) or less in overall length, and shall increase at least $^{1}\!4$ inch (0.64 cm) for each additional 2 feet (0.61 m) of ladder length.
- (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:
- ANSI A14.1-1990, Safety Requirements for Portable Wood Ladders
- ANSI A14.2-1990, Safety Requirements for Portable Metal Ladders
- ANSI A14.5–1992, Safety Requirements for Portable Reinforced Plastic Ladders
- (d) Standards for job-made portable ladders. Job-made ladders shall:
- (1) Have a minimum and uniform distance between rungs of 12 inches (30.48 cm), center to center;
- (2) Are capable of supporting a 250-pound (1,112 N) load without deformation; and

- (3) Have a minimum width between side rails of 12 inches (30.48 cm) for ladders 10 feet (3.05 m) in height. Width between rails shall increase at least ½ inch (0.64 cm) for each additional 2 feet (0.61 m) of ladder length.
- (e) Maintenance and inspection. (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:
- (i) Broken, split or missing rungs, cleats or steps:
 - (ii) Broken or split side rails;
- (iii) Missing or loose bolts, rivets or fastenings;
- (iv) Defective ropes; or
- (v) Any other structural defect.
- (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.
- (f) Ladder usage. (1) Ladders made by fastening rungs or devices across a single rail are prohibited.
 - (2) Ladders shall not be used:
 - (i) As guys, braces or skids; or
- (ii) As platforms, runways or scaffolds.
- (3) Metal and wire-reinforced ladders with wooden side rails shall not be used when employees on the ladder might come into contact with energized electrical conductors.
- (4) Individual sections from different multi-sectional ladders or two or more single straight ladders shall not be tied or fastened together to achieve additional length.
- (5) Except for combination ladders, self-supporting ladders shall not be used as single straight ladders.
- (6) Unless intended for cantilever operation, non-self-supporting ladders shall not be used to climb above the top support point.
- (7) Ladders shall extend at least 36 inches (0.91 m) above the upper support level if employees are to leave or mount the ladder at that level, except that where such extension is impractical other equivalent means such as grab bars may be used to provide a hand grip.
- (8) Ladders shall be securely positioned on a level and firm base.

- (9) Ladders shall be fitted with slipresistant bases and secured at top or bottom to prevent the ladder from slipping.
- (10) The employer shall direct that ladders shall be placed so that employees climbing are not exposed to injury from projecting objects or doors that open toward the ladder.

[48 FR 30909, July 5, 1983, as amended at 62 FR 40201, July 25, 1997; 65 FR 40941, June 30, 2000]

§1917.120 Fixed stairways.

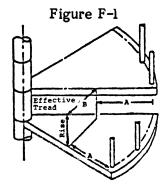
- (a) Definition. "Fixed stairway" means interior and exterior stairs serving machinery, tanks and equipment, and stairs to or from floors, platforms or pits. The term does not apply to stairs intended only for fire exit purposes, to articulated stairs (the angle of which changes with the rise and fall of the base support) or to stairs forming an intergral part of machinery.
- (b) New installations. (1) Fixed stairs installed after October 3, 1983 shall be positioned within the range of 30 degrees to 50 degrees to the horizontal with uniform riser height and tread width throughout each run and be capable of a minimum loading of 100 pounds per square foot (445 N) and a minimum concentrated load of 300 pounds (1,334 N) at the center of any treadspan. Riser height shall be from 6 to 7.5 inches (15.24 to 19.05 cm), stair width a minimum of 22 inches (55.88 cm) between vertical barriers, tread depth a minimum of 12±2 inches (30.48±5.08 cm), and tread nosing shall be straight leading edges.
- (2) Stair landings shall be at least 20 inches (50.8 cm) in depth. Where doors or gates open on a stairway, a landing platform shall be provided. Door swing shall not reduce effective standing area on the landing to less than 18 inches (45.72 cm) in depth.
- (3) Fixed stairs having four or more risers shall have stair railings or handrails complying with §1917.112(c)(1).
- (4) Railing height from tread surface at the riser face shall be 33 ± 3 inches $(83.82 \text{ cm} \pm 7.62 \text{ cm})$.
- (5) Restricted areas. When physical features require stairs steeper than those provided for by paragraph (b)(1) of this section, stairs at angles of 50° to

- 75° from the horizontal may be used if they:
- (i) Are capable of a single concentrated load of 200 pounds (890 N) at the tread centers;
- (ii) Have open treads at least 4 inches (10.16 cm) in depth and 18 inches (45.72 cm) in width with a uniformly spaced vertical rise between treads of 6 to 9.5 inches (15.24 to 24.13 cm); and
- (iii) Have handrails that meet the requirements of \$1917.112(c)(1) on both sides and that are not less than 30 inches (76.2 cm) in height from the tread surface at the riser face.
- (6) Maintenance. Fixed stairways shall be maintained in safe condition and shall not be obstructed.

[48 FR 30909, July 5, 1983, as amended at 65 FR 40942, June 30, 2000]

§ 1917.121 Spiral stairways.

- (a) Definition. "Spiral stairway" means one with closed circular form, uniform sector-shaped treads and a supporting column.
- (b) Requirements. Spiral stairways shall meet the following requirements:
- (1) Stairways shall conform to the minimum dimensions of Figure F-1;



SPIRAL STAIRWAY—MINIMUM DIMENSIONS

	A (half-tread width)	В
Normal use by employees. Limited access	11 inches (27.94 cm). 9 inches (22.86 cm).	6 inches (15.24 cm). 5 inches (12.7 cm).

(2) Stairway risers shall be uniform and shall range from $6\frac{1}{2}$ to $10\frac{1}{2}$ inches (16.5 to 26.67 cm) in height;

- (3) Minimum loading capability shall be 100 pounds per square foot (4.79kN), and minimum tread center concentrated loading shall be 300 pounds (1334 N):
- (4) Railings shall conform to the requirements of \$1917.112(c)(1). If balusters are used, there shall be a minimum of one per tread. Handrails shall be a minimum of $1\frac{1}{4}$ inches (3.18 cm) in outside diameter; and
- (5) Vertical clearance shall be at least 6 feet, 6 inches (1.98 m) above the top step.
- (c) *Maintenance*. Spiral stairways shall be maintained in safe condition.

[48 FR 30909, July 5, 1983, as amended at 62 FR 40201, July 25, 1997; 65 FR 40942, June 30, 20001

§1917.122 Employee exits.

- (a) Employee exits shall be clearly marked.
- (b) If an employee exit is not visible from employees' work stations, directional signs indicating routes to the exit shall be posted.
- (c) Exits shall be readily accessible and sufficient in number to provide employees with a convenient means of escape in emergencies. A clear passage to the exit shall be maintained.
- (d) The minimum width of any employee exit shall be 28 inches (71.12 cm). [48 FR 30909, July 5, 1983, as amended at 65 FR 40942, June 30, 2000]

§1917.123 Illumination.9

(a) Working and walking areas shall be illuminated. Unless conditions described in the regulations of the United States Coast Guard (33 CFR 126.15(1) 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 ½ 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.
- (b) The lighting intensity shall be measured at the task/working surface, in the plane in which the task/working surface is present.
- (c) Lights shall, so far as possible, be placed so that they will not shine in the eyes of employees.

[48 FR 30909, July 5, 1983, as amended at 62 FR 40201, July 25, 1997]

§ 1917.124 Dockboards (car and bridge plates).

- (a) *General*. The employer shall provide safe means of passage between different surface levels and across openings.
 - (b) [Reserved]
- (c) Dockboards (car and bridge plates).
 (1) Dockboards shall be strong enough to support the loads imposed on them.
- (2) Portable dockboards shall be anchored in position or be equipped with devices to prevent their movement.
- (3) Hand holds or other effective means shall be provided on portable dockboards to permit safe handling.
- (4) Positive means shall be used to prevent railcars or highway vehicles from being moved while dockboards or bridge plates are in position.
- (5) Be designed, constructed, and maintained to prevent vehicles from running off the edge. 10
- (6) Dockboards shall be well maintained.
- (d) *Ramps*. (1) Ramps shall be strong enough to support the loads imposed on them and be designed, constructed, and maintained to prevent vehicles from running off the edge. ¹¹
- (2) Ramps shall be equipped with a guardrail meeting the requirement of §1917.112(c)(1) if the slope is more than

⁹The United States Coast Guard, at 33 CFR 126.15(1) and (n), and 33 CFR 154.570 sets out requirements for illumination at "designated waterfront facilities" and "large oil transfer facilities."

¹⁰When the gap to be bridged to greater than 36 inches (.91 m), an acceptable means of preventing vehicles from running off the edge is a minimum side board height of two and three-quarter inches.

¹¹When the gap to be bridged is greater than 36 inches (.91 m), an acceptable means of preventing vehicles from running off the edge is a minumum side board height of two and three-quarter inches.

20 degrees to the horizontal or if employees could fall more than 4 feet (1.22 m).

- (3) Ramps shall have slip-resistant surfaces.
- (4) When necessary to prevent displacement by vehicle wheels, steel plates or similar devices used to temporarily bridge or cover uneven surfaces or tracks, shall be anchored.
- (5) Ramps shall be well maintained. [48 FR 30909, July 5, 1983, as amended at 62 FR 40201, July 25, 1997; 65 FR 40942, June 30, 2000]

§ 1917.125 Guarding temporary hazards.

Ditches, pits, excavations and surfaces in poor repair shall be guarded by readily visible barricades, rails or other equally effective means.

§ 1917.126 River banks.

- (a) This section applies to temporary installations or temporary operations near a river bank.
- (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).

 $[48\ FR\ 30909,\ July\ 5,\ 1983,\ as\ amended\ at\ 62\ FR\ 40201,\ July\ 25,\ 1997]$

§1917.127 Sanitation.

- (a) Washing and toilet facilities. (1) The employer shall provide accessible washing and toilet facilities sufficient for the sanitary requirements of employees. The facilities shall have:
- (i) Running water, including hot and cold or tepid water at a minimum of one accessible location (when cargo handling is conducted at locations without permanent facilities, potable water may be provided in lieu of running water);
 - (ii) Soap;
- (iii) Individual hand towels, clean individual sections of continuous toweling or warm air blowers; and
- (iv) Fixed or portable toilets in separate compartments with latchequipped doors. Separate toilet facili-

ties shall be provided for male and female employees except when toilet rooms will be occupied by only one person at a time.

- (2) Washing and toilet facilities shall be regularly cleaned and maintained in good order.
- (b) *Drinking water*. (1) Potable drinking water shall be accessible to employees at all times.
- (2) Potable drinking water containers shall be clean, containing only water and ice, and shall be fitted with covers.
- (3) Common drinking cups are prohibited.
- (c) Prohibited eating areas. Consumption of food or beverages in areas where hazardous materials are being stored or handled shall be prohibited.
- (d) Garbage and overboard discharges. Work shall not be conducted in the immediate vicinity of uncovered garbage or in the way of overboard discharges from the vessel's sanitary lines unless employees are protected from the garbage or discharge by a baffle or splash boards

EFFECTIVE DATE NOTE: At 76 FR 33610, June 8, 2011, §1917.127 was amended by revising paragraph (a)(1)(iii), effective July 8, 2011. For the convenience of the user, the revised text is set forth as follows:

§ 1917.127 Sanitation.

(a) * * *

(1) * * *

(iii) Individual hand towels, clean individual sections of continuous toweling, or air blowers; and

§1917.128 Signs and marking.

- (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.
- (1) Key words are such words as Danger, Warning, Caution.
- (2) Legends are more specific explanations such as High Voltage, Close Clearance, Pedestrian Crossing.
- (b) *Specific*. Every marine terminal shall have conspicuously posted signs as follows:
 - (1) Locations of first aid facilities;
- (2) Locations of telephones;
- (3) Telephone numbers of the closest ambulance service, hospital or other

source of medical attention, police, fire department, and emergency squad (if any); and

(4) Locations of firefighting and emergency equipment and fire exits.

Subpart G—Related Terminal Operations and Equipment

§ 1917.151 Machine guarding.

- (a) Definition. "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).
- (b) General. (1) Danger zones on machines and equipment used by employees shall be guarded.
- (2) Where chips and dust produced by machine operation may result in a hazard to the operator, the machinery shall be equipped with an effective exhaust system at the point of origin, or other equally effective means shall be provided to protect the operator.
- (3) Fixed machinery shall be secured to prevent shifting.
- (4) A power cut-off device for machinery and equipment shall be provided at the operator's working position.
- (5) Machines driven by belts and shafting shall be fitted with a belt-locking or equivalent protective device if the belt can be shifted.
- (6) In operations where injury to the operator might result if motors were to restart after power failures, provisions shall be made to prevent machines from automatically restarting upon restoration of power.
- (7) The power supply to machines shall be turned off, locked out, and tagged out during repair, adjustment, or servicing.
- (8) Machines shall be maintained in a safe working condition.
- (9) Only designated employees shall maintain or repair machinery and equipment.
- (10) Machines with defects that affect the safety of operation shall not be used.

- (c) Hand-fed circular ripsaws and hand-fed circular crosscut table saws. Unless fixed or manually adjustable enclosures or guarding provides equivalent protection, hand-fed circular ripsaws and hand-fed circular crosscut table saws shall be guarded as follows to keep employees clear of any danger zones:
- (1) They shall be equipped with hoods completely enclosing those portions of the saw above the table and the material being cut;
- (2) They shall have spreaders to prevent material from squeezing the saw. Spreaders shall be in true alignment with the saw. Spreaders may be removed only during grooving, dadoing, or rabbeting operations, and shall be replaced at the completion of such operations; and
- (3) They shall have non-kickback fingers or dogs to oppose the tendency of the saw to pick up material or throw material toward the operator.
- (d) Swing cutoff saws. (1) Swing cutoff saws shall have hoods completely enclosing the upper half of the saw, the arbor end and the point of operation at all saw positions to protect the operator from material thrown up by the saw. The hood shall automatically cover the lower portion of the blade, so that when the saw returns to the back of the table the hood rises on top of the fence, and when the saw is moved forward the hood drops on top, remaining in contact with the table or the material.
- (2) Swing cutoff saws shall have a device to return the saw automatically to the back of the table without rebound. The device shall not be dependent upon rope, cord or springs.
- (3) Devices shall be provided to prevent saws from swinging beyond the front or back edges of the table.
- (4) Inverted swing cutoff saws shall have hoods covering the part of the saw protruding above the table top or the material being cut. Hoods shall automatically adjust to the thickness of, and remain in contact with, material being cut.
- (e) Radial saws. Unless fixed or manually adjustable enclosures or guards provide equivalent protection, radial saws shall be guarded as follows: