Walking and Working Surfaces – OSHA CFR 1915 vs. 1910

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Walking and Working Surfaces

APPLICABLE STANDARDS AND SCOPES

• 1910 Subpart D
  • This subpart applies to all general industry workplaces. It covers all walking-working surfaces unless specifically excluded by an individual section of this subpart

• 1915 Subpart D Scaffolds, Ladders and Other Working Surfaces
  • The provisions of this section shall apply to all ship repairing, shipbuilding and shipbreaking operations except that paragraphs (b)(8) through (b)(10) and paragraphs (c) through (f) of this section shall only apply to ship repairing and shipbuilding operations and shall not apply to shipbreaking.

• 1915 Subpart F General Working Conditions
  • The provisions of this subpart apply to general working conditions in shipyard employment, including work on vessels, on vessel sections, and at landside operations, regardless of geographic location.
• (j) The terms ship repair and ship repairing mean any repair of a vessel including, but not restricted to, alterations, conversions, installations, cleaning, painting, and maintenance work.

• (k) The term shipbuilding means the construction of a vessel including the installation of machinery and equipment.

• (l) The term shipbreaking means any breaking down of a vessel's structure for the purpose of scrapping the vessel, including the removal of gear, equipment or any component part of a vessel.
## Walking and Working Surfaces - Changes

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## Timeline for Compliance

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<tr>
<td>1910.30(a) - Train exposed employees on fall hazards</td>
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<td>1910.30(b) - Train employees who use equipment covered by the new rule</td>
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<td>1910.27(b)(1) - Inspect and certify permanent anchorage points for rope descent systems</td>
<td>November 20, 2017</td>
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<td>1910.28(b)(9)(i)(B) - For fixed ladders over 24 feet, install personal fall arrest or ladder safety systems on new fixed and on replacement ladders or ladder sections, including ladder systems on advertising structures</td>
<td>November 19, 2018</td>
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<td>1910.28(b)(9)(i)(A) - Ensure existing fixed ladders over 24 feet are equipped with a cage, well, personal fall arrest system, or ladder safety system</td>
<td>November 19, 2018</td>
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<tr>
<td>1910.28(b)(9)(i)(D) - Replace those cages and wells used as fall protection with ladder safety or personal fall arrest systems on all fixed ladders over 24 feet</td>
<td>November 18, 2036</td>
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Walking and Working Surfaces

**1915**

1915.80(b) **Definitions applicable to this subpart.**

- **Authorized employee**
  An employee who performs one or more of the following lockout/tags-plus responsibilities:
  - Executes the lockout/tags-plus procedures;
  - Installs a lock or tags-plus system on machinery, equipment, or systems; or
  - Services any machine, equipment, or system under lockout/tags-plus application.

**1910**

1910.21 – **Scope and Definitions**

- **Authorized** means an employee who the employer assigns to perform a specific type of duty, or allows in a specific location or area.
Walking and Working Surfaces

1915

1915.80(b) Definitions applicable to this subpart.
• Not available

1910

1910.21 – Scope and Definitions
• Hole means a gap or open space in a floor, roof, horizontal walking-working surface, or similar surface that is at least 2 inches (5 cm) in its least dimension
Walking and Working Surfaces

1915

1915.83(a)(1) Steam supply system, and
1915.83(c)(3) Electric shore power

• A responsible vessel's representative, a contractor, or any other person who is qualified by training, knowledge, or experience

1910

1910.21 – Scope and Definitions

• **Competent person** means a person who is capable of identifying existing and predictable hazards in any personal fall protection system or any component of it, as well as in their application and uses with related equipment, and **who has authorization to take prompt, corrective action** to eliminate the identified hazards.

• Qualified describes a person who, by possession of a recognized degree, certificate, or professional standing, or who by **extensive knowledge, training, and experience** has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project.
1915.80(b) Definitions applicable to this subpart.

- Not available

1910.21 – Scope and Definitions

- **Low-slope roof** means a roof that has a slope less than or equal to a **ratio of 4 in 12** (vertical to horizontal).

- **Manhole steps** means steps that are individually attached to, or set into, the wall of a manhole structure.
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<td>1915.80(b) Definitions applicable to this subpart.</td>
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<td>• <strong>Walkway.</strong> Any surface, whether vertical, slanted, or horizontal, on which employees walk, including areas that employees pass through, to perform their job tasks. Walkways include, but are not limited to, access ways, designated walkways, aisles, exits, gangways, ladders, ramps, stairs, steps, passageways, and scaffolding. If an area is, or could be, used to gain access to other locations, it is to be considered a walkway.</td>
<td>• <strong>Opening</strong> means a gap or open space in a wall, partition, vertical walking-working surface, or similar surface that is at least 30 inches (76 cm) high and at least 18 inches (46 cm) wide, through which an employee can fall to a lower level.</td>
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<tr>
<td></td>
<td>• <strong>Walking-working surface</strong> means any horizontal or vertical surface on or through which an employee walks, works, or gains access to a work area or workplace location (i.e. parking lots)</td>
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1915 – General Working Conditions: Housekeeping

• The employer shall **eliminate** slippery conditions, such as snow and ice, on walkways and working surfaces as necessary. If it is not practicable for the employer to remove slippery conditions, the employer either shall:
  
  • Restrict employees to designated walkways and **working surfaces** where the employer has eliminated slippery conditions; or
  
  • Provide **slip-resistant footwear**

1910 – General Requirements: Housekeeping

Employers are required to inspect walking-working surfaces **regularly and as needed** and identify, control, and as much as possible prevent hazardous conditions.

**Surface conditions** - Walking-working surfaces are **maintained free of hazards** such as sharp or protruding objects, loose boards, corrosion, leaks, spills, snow, and ice
Walking and Working Surfaces

1915

1915.81 – General Working Conditions: Housekeeping

• The employer also shall ensure that each walkway:
  • Provides adequate passage;
  • Is clear of debris, including solid and liquid wastes, that may create a hazard for employees;
  • Is clear of tools, materials, equipment, and other objects that may create a hazard for employees; and
  • Is clear of hoses and electrical service cords.

• While a walkway or part of a walkway is being used as a working surface, the employer shall cordon off that portion to prevent it from being used as a walkway.

1910

1910.22 – General Requirements: Housekeeping

• Inspection, maintenance, and repair
  • The employer must ensure: Walking-working surfaces are inspected, regularly and as necessary, and maintained in a safe condition.
  • Hazardous conditions on walking working surfaces are corrected or repaired before an employee uses the walking-working surface again. If the correction or repair cannot be made immediately, the hazard must be guarded to prevent employees from using the walking-working surface until the hazard is corrected or repaired; and
Walking and Working Surfaces

1915

1915.81 – General Working Conditions: Housekeeping
• Not available

1910

1910.22 – General Requirements: Housekeeping
• When any correction or repair involves the structural integrity of the walking-working surface, a qualified person performs or supervises the correction or repair.
Walking and Working Surfaces

1915

1915.72 – Scaffolds, Ladders and Other Working Surfaces: Ladders

• The use of ladders with broken or missing rungs or steps, broken or split side rails, or other faulty or defective construction is prohibited. When ladders with such defects are discovered, they shall be immediately withdrawn from service. Inspection of metal ladders shall include checking for corrosion of interiors of open end, hollow rungs.

1910

1910.23 – Ladders

Ladders are inspected before initial use in each work shift to identify any visible defects that could cause employee injury.

• Each employee faces the ladder when climbing up or down it.

• Each employee uses at least one hand to grasp the ladder when climbing up and down it.

Note: OSHA replaced the word “three points of contact” with “at least one hand.”
Walking and Working Surfaces

1915

1915.76(a) – Scaffolds, Ladders and Other Working Surfaces: Access to cargo spaces and confined spaces

• When any fixed ladder is visibly unsafe, the employer shall prohibit its use by employees.

1910

1910.23 – (d) Fixed ladders

(4) The side rails of through or side-step ladders extend 42 inches (1.1 m) above the top of the access level or landing platform served by the ladder. For parapet ladders, the access level is:

(i) The roof, if the parapet is cut to permit passage through the parapet; or

(ii) The top of the parapet, if the parapet is continuous;

• (7) Grab bars extend 42 inches (1.1 m) above the access level or landing platforms served by the ladder;

Parapet

1915.71(k)(1) - Scaffolds, Ladders and Other Working Surfaces: Access to and guarding of dry docks and marine: Scaffolds or staging

- Access from below to staging more than 5 feet above a floor, deck or the ground shall consist of well secured stairways, cleated ramps, fixed or portable ladders meeting the applicable requirements of 1915.72 or rigid type non-collapsible trestles with parallel and level rungs.

1910.24 Step bolts and manhole steps

- (2) The employer must ensure that each manhole step installed on or after January 17,2017:
  - (i) Has a corrugated, knurled, dimpled, or other surface that minimizes the possibility of an employee slipping;
  - (ii) Is constructed of, or coated with, material that protects against corrosion if the manhole step is located in an environment where corrosion may occur;
  - (3) The employer must ensure that each manhole step is inspected at the start of the work shift and maintained in accordance with § 1910.22.
Walking and Working Surfaces

1915

1915.71 – Scaffolds, Ladders and Other Working Surfaces: Scaffolds or staging

• No scaffold shall be erected, moved, dismantled or altered except under the supervision of competent persons.

1910

1910.27 – Scaffolds and Rope Descent Systems

• Scaffolds shall be designed by a qualified person and shall be constructed and loaded in accordance with that design

• Before the scaffold is used, direct connections shall be evaluated by a competent person who shall confirm, based on the evaluation, that the supporting surfaces are capable of supporting the loads to be imposed.
Walking and Working Surfaces

1915

1915.77 – Scaffolds, Ladders and Other Working Surfaces: Working Surfaces

• When employees are working aloft, or elsewhere at elevations more than 5 feet above a solid surface, either scaffolds or a sloping ladder, meeting the requirements of this subpart, shall be used to afford safe footing, or the employees shall be protected by safety belts and lifelines meeting the requirements of §§ 1915.159 and 1915.160.

1910

1910.27 – Scaffolds and Rope Descent Systems

• Ramps and walkways 6 feet or more above lower levels shall have guardrail systems
Walking and Working Surfaces

1915

- Not available

1910

Rope Descent Systems

- Before any rope descent system is used, the building owner must inform the employer, in writing that the building owner has identified, tested, certified, and maintained each anchorage so it is capable of supporting at least 5,000 pounds, in any direction, for each employee attached.

- The information must be based on an annual inspection by a qualified person and certification of each anchorage by a qualified person, as necessary, and at least every 10 years.
Walking and Working Surfaces

1915

• Not available

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Rope Descent Systems

• No rope descent system is used for heights greater than 300 feet above grade unless the employer demonstrates that it is not feasible to access such heights by any other means or that those means pose a greater hazard than using a rope descent system

• Each employee who uses the rope descent system is trained
1915.77 – Scaffolds, Ladders and Other Working Surfaces: Working Surfaces

• When employees are working aloft, or elsewhere at elevations more than 5 feet above a solid surface, either scaffolds or a sloping ladder, meeting the requirements of this subpart, shall be used to afford safe footing, or the employees shall be protected by safety belts and lifelines meeting the requirements of §§ 1915.159 and 1915.160.

§ 1910.28 – Duty to Have Fall Protection and Falling Object Protection

• The employer must ensure that each employee on a walking-working surface with an unprotected side or edge that is 4 feet or more above a lower level is protected from falling by one or more of the following
  • Guardrail systems;
  • Safety net systems; or
  • Personal fall protection systems, such as personal fall arrest, travel restraint, or positioning systems.
Walking and Working Surfaces

1910

1910.28 – Duty to Have Fall Protection and Falling Object Protection

• When the employer can demonstrate that the use of fall protection systems is not feasible on the working side of a platform used at a loading rack, loading dock, or teeming platform, the work may be done without a fall protection system, provided:
  • The work operation for which fall protection is infeasible is in process;
  • Access to the platform is limited to authorized employees; and,
  • The authorized employees are trained

1915

• Not available
Walking and Working Surfaces

1915

1915.73 – Scaffolds, Ladders and Other Working Surfaces: Guarding of deck openings and edges

• When employees are working in the vicinity of flush manholes and other small openings of comparable size in the deck and other working surfaces, such openings shall be suitably covered or guarded to a height of not less than 30 inches, except where the use of such guards is made impracticable by the work actually in progress.

• When employees are working around open hatches not protected by coamings to a height of 24 inches or around other large openings, the edge of the opening shall be guarded in the working area to height of 36 to 42 inches, except where the use of such guards is made impracticable by the work actually in progress.

1910

1910.28 – Duty to Have Fall Protection and Falling Object Protection

• The employer must ensure each employee is protected from falling through any hole (including skylights) that is 4 feet or more above a lower level by one or more of the following:
  • Covers;
  • Guardrail systems;
  • Travel restraint systems; or
  • Personal fall arrest systems.

• Note: OSHA defines a hole as any opening greater than 2 inches.
Walking and Working Surfaces

1915

1915.71 – Scaffolds, Ladders and Other Working Surfaces: Scaffolds or staging

• Scaffolding, staging, runways, or working platforms which are supported or suspended more than 5 feet above a solid surface, or at any distance above the water, shall be provided with a railing which has a top rail whose upper surface is from 42 to 45 inches above the upper surface of the staging, platform, or runway and a midrail located halfway between the upper rail and the staging, platform, or runway.

1910

1910.28 – Duty to Have Fall Protection and Falling Object Protection

• The employer must ensure each employee on a runway or similar walkway is protected from falling 4 feet or more to a lower level by a guardrail system.

• Each employee less than 4 feet above dangerous equipment is protected from falling into or onto the dangerous equipment by a guardrail system or a travel restraint system, unless the equipment is covered or guarded to eliminate the hazard.
Walking and Working Surfaces

1915

1915.73 – Scaffolds, Ladders and Other Working Surfaces: Guarding of deck openings and edges

• When employees are working in the vicinity of flush manholes and other small openings of comparable size in the deck and other working surfaces, such openings shall be suitably covered or guarded to a height of not less than 30 inches, except where the use of such guards is made impracticable by the work actually in progress.

• When employees are working around open hatches not protected by coamings to a height of 24 inches or around other large openings, the edge of the opening shall be guarded in the working area to height of 36 to 42 inches, except where the use of such guards is made impracticable by the work actually in progress.

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1910.28 – Duty to Have Fall Protection and Falling Object Protection

• Openings
  • surface near an opening, including one with a chute attached, where the inside bottom edge of the opening is less than 39 inches (99 cm) above that walking-working surface and the outside bottom edge of the opening is 4 feet (1.2 m) or more above a lower level is protected from falling by the use of:
    • Guardrail systems;
    • Safety net systems;
    • Travel restraint systems; or,
    • Personal fall arrest systems
Walking and Working Surfaces

1915

• Not available

1910

1910.28 – Duty to Have Fall Protection and Falling Object Protection

• Fixed Ladders

• **Existing Fixed Ladders**
  • Each fixed ladder installed before **November 19, 2018** is equipped with:
    • Personal fall arrest system,
    • Ladder safety system,
    • Cage, or well;

• **Note:** A Ladder safety system is a system designed to eliminate or reduce the possibility of falling from a ladder. LSS typically include a carrier, safety sleeve, lanyard, connections, and body harnesses. Cages and wells are no longer treated as ladder safety systems.
Walking and Working Surfaces

**1915**

- Not Available

**1910**

1910.28 – Duty to Have Fall Protection and Falling Object Protection

- Fixed Ladders

- *New Fixed Ladders*
  - Each fixed ladder installed on and after **November 19, 2018**, is equipped with:
    - Personal fall arrest system or
    - Ladder safety system;
Walking and Working Surfaces

1910

1910.28 – Duty to Have Fall Protection and Falling Object Protection

• Fixed Ladders

• Replacement Ladders
  • When a fixed ladder, cage, or well, or any portion of a section thereof, is replaced, a personal fall arrest system or ladder safety system is installed in at least that section of the fixed ladder, cage, or well where the replacement is located; and

• Final deadline for Ladders
  • On and after November 18, 2036, all fixed ladders are equipped with a personal fall arrest system or a ladder safety system.

1915

• Not available
Walking and Working Surfaces

1915

1915.71 – Scaffolds, Ladders and Other Working Surfaces: Scaffolds or staging

• Ramps and stairways shall be provided with 36-inch handrails with midrails.

1910

1910.28 – Duty to Have Fall Protection and Falling Object Protection

• Stairways

• The employer must ensure each employee exposed to an unprotected side or edge of a stairway landing that is 4 feet or more above a lower level is protected by a guardrail or stair rail system.

• Each flight of stairs having at least 3 treads and at least 4 risers is equipped with stair rail systems and handrails.
Walking and Working Surfaces

1915

• Not available

1910

1910.28 – Duty to Have Fall Protection and Falling Object Protection

• Work on low-slope roofs

• When work is performed less than 6 feet from the roof edge, the employer must ensure each employee is protected from falling by a guardrail system, safety net system, travel restraint system, or personal fall arrest system
Walking and Working Surfaces

1915

• Not available

1910

1910.28 – Duty to Have Fall Protection and Falling Object Protection

• Work on low-slope roofs

• When work is performed at least 6 feet (1.6 m) but less than 15 feet (4.6 m) from the roof edge, the employer must ensure each employee is protected from falling by using a guardrail system, safety net system, travel restraint system, or personal fall arrest system. The employer may use a designated area when performing work that is both infrequent and temporary.
Walking and Working Surfaces

1910.28 – Duty to Have Fall Protection and Falling Object Protection

- Work on low-slope roofs
- When work is performed 15 feet or more from the roof edge, the employer must:
  - Protect each employee from falling by a guardrail system, safety net system, travel restraint system, or personal fall arrest system or a designated area. The employer is not required to provide any fall protection, provided the work is both infrequent and temporary; and
  - Implement and enforce a work rule prohibiting employees from going within 15 feet of the roof edge without using fall protection.

1915

- Not available
1915.73 – Scaffolds, Ladders and Other Working Surfaces: Guarding of deck openings and edges

- When employees are exposed to unguarded edges of decks, platforms, flats, and similar flat surfaces, more than 5 feet above a solid surface, the edges shall be guarded by adequate guardrails meeting the requirements of 1915.71(j)(1) and (2), unless the nature of the work in progress or the physical conditions prohibit the use or installation of such guardrails.

1910.28 – Duty to Have Fall Protection and Falling Object Protection

- Walking-working surfaces not otherwise addressed. Except as provided elsewhere in this section or by other subparts of this part, the employer must ensure each employee on a walking-working surface 4 feet (1.2 m) or more above a lower level is protected from falling by:
  - Guardrail systems;
  - Safety net systems; or
  - Personal fall protection systems, such as personal fall arrest, travel restraint, or positioning systems.
Walking and Working Surfaces

1915

1915.71 – Scaffolds, Ladders and Other Working Surfaces: Scaffolds or staging

• When necessary, to prevent tools and materials from falling on men below, toeboards of not less than 1 x 4 inch lumber shall be provided.

1910

1910.29 – Fall Protection Systems and Falling Object Protection: Criteria and Practices

• Protection from falling objects. When an employee is exposed to falling objects, the employer must ensure that each employee wears head protection that meets the requirements of subpart I of this part. In addition, the employer must protect employees from falling objects by implementing one or more of the following:
Walking and Working Surfaces

• Not available

1915

Ladder safety systems. The employer must ensure:
• Each ladder safety system allows the employee to climb up and down using both hands and does not require that the employee continuously hold, push, or pull any part of the system while climbing;
• The connection between the carrier or lifeline and the point of attachment to the body harness or belt does not exceed 9 inches (23 cm);
• The design and installation of mountings and cable guides does not reduce the design strength of the ladder; and
• Ladder safety systems and their support systems are capable of withstanding, without failure, a drop test consisting of an 18-inch (41-cm) drop of a 500-pound (227-kg) weight.

1910

1910.29 – Fall Protection Systems and Falling Object Protection: Criteria and Practices

• Ladder safety systems. The employer must ensure:
• Each ladder safety system allows the employee to climb up and down using both hands and does not require that the employee continuously hold, push, or pull any part of the system while climbing;
• The connection between the carrier or lifeline and the point of attachment to the body harness or belt does not exceed 9 inches (23 cm);
• The design and installation of mountings and cable guides does not reduce the design strength of the ladder; and
• Ladder safety systems and their support systems are capable of withstanding, without failure, a drop test consisting of an 18-inch (41-cm) drop of a 500-pound (227-kg) weight.
Walking and Working Surfaces

1915

• Not available

1910

1910.29 – Fall Protection Systems and Falling Object Protection: Criteria and Practices

• A competent person or qualified person must inspect each knot in a lanyard or vertical lifeline before any employee uses the lanyard or lifeline.

• The employer must ensure that each horizontal lifeline is designed, installed, and used under the supervision of a qualified person and is part of a complete personal fall arrest system that maintains a safety factor of at least two.

• Personal fall protection systems must be inspected before initial use during each work shift for mildew, wear, damage, and other deterioration, and defective components must be removed from service.

• Body belts are prohibited as part of a personal fall arrest system
Walking and Working Surfaces

1915

• Not applicable

1910

1910.29 – Training

• Employers must provide information and training to each worker in a manner the worker understands:
  • Before any employee is exposed to a fall hazard, the employer must provide training for each employee who uses personal fall protection systems or who is required to be trained as specified elsewhere in this subpart. Employers must ensure employees are trained in the requirements of this paragraph on or before May 17, 2017.
Walking and Working Surfaces

1915

• Not applicable

1910

1910.29 – Training

• The employer must train each employee on or before May 17, 2017 in the proper care, inspection, storage, and use of equipment covered by this subpart before an employee uses the equipment.

• The employer must retrain an employee when the employer has reason to believe the employee does not have the understanding and skill required by paragraphs (a) and (b) of this section.
Thank you for not falling asleep.

Adjourn