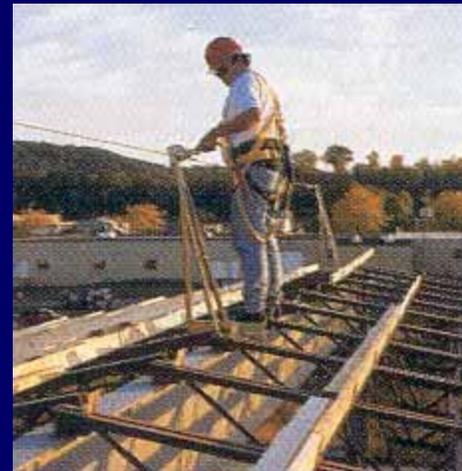


Walking and Working Surfaces

Working Safely in all areas



The Regulations

- ⌘ 1910.21 - Definitions.
- ⌘ 1910.22 - General requirements.
- ⌘ 1910.23 - Guarding floor and wall openings and holes.
- ⌘ 1910.24 - Fixed industrial stairs.
- ⌘ 1910.25 - Portable wood ladders.
- ⌘ 1910.26 - Portable metal ladders.
- ⌘ 1910.27 - Fixed ladders.
- ⌘ 1910.28 - Safety requirements for scaffolding.
- ⌘ 1910.29 - Manually propelled mobile ladder stands and scaffolds (towers).
- ⌘ 1910.30 - Other working surfaces.
- ⌘ 1910 Subpart D - Authority for 1910 Subpart D

General Requirements

Housekeeping

⌘ All places of employment, passageways, storerooms, and service rooms shall be kept clean and orderly and in a sanitary condition.

General Requirements

Housekeeping

- ⌘ The floor of every workroom shall be maintained in a clean and, so far as possible, a dry condition. Where wet processes are used, drainage shall be maintained and gratings, mats, or raised platforms shall be provided.
- ⌘ Every floor, working place and passageway shall be kept free from protruding nails, splinters, holes, or loose boards.

General Requirements Aisles & Passageways

⌘ Aisles and passageways shall be kept clear and in good repair with no obstruction across or in aisles that could create a hazard.

General Requirements Aisles & Passageways

- ⌘ Permanent aisles and passageways shall be appropriately marked.
- ⌘ Where mechanical handling equipment is used, aisles shall be sufficiently wide. Improper aisle widths coupled with poor housekeeping and vehicle traffic can cause injury to employees, damage the equipment and material, and can limit egress in emergencies.

General Requirements

Covers & Guardrails

- ⌘ Covers and/or guardrails shall be provided to protect personnel from the hazards of open pits, tanks, vats, ditches, and the like.
- ⌘ Skylights shall also be protected to prevent accidental falling through.



General Requirements

Floor Loading Protection

- ⌘ Load rating limits shall be marked on plates and conspicuously posted.
- ⌘ It shall be unlawful to place, or cause, or permit to be placed, on any floor or roof of a building or other structure, a load greater than that for which such floor or roof is approved.

Determining an Opening

- ⌘ **Floor hole.** An opening measuring less than 12 inches but more than 1 inch in its least dimension, in any floor, platform, pavement or yard, through which materials but not persons may fall.
- ⌘ **Floor opening.** An opening measuring 12 inches or more in its least dimension, in any floor, platform, pavement, or yard, through which persons may fall.

Determining an Opening

- ⌘ **Platform.** A working space for persons, elevated above the surrounding floor or ground.
- ⌘ **Wall hole.** An opening less than 30 inches but more than 1 inch high, of unrestricted width, in any wall or partition.
- ⌘ **Wall opening.** An opening at least 30 inches high and 18 inches wide, in any wall or partition, through which persons may fall.

Protection for Floor Openings

- ⌘ Standard railings shall be provided on all exposed sides of a stairway opening, except at the stairway entrance.
- ⌘ For infrequently used stairways, where traffic across the opening prevents the use of a fixed standard railing, the guard shall consist of a hinged floor opening cover of standard strength and construction along with removable standard railings on all exposed sides, except at the stairway entrance.

Protection for Floor Openings

⌘ A "standard railing" consists of top rail, mid rail, and posts, and shall have a vertical height of 42 inches nominal from the upper surface of top rail to floor, platform, runway, or ramp level. Nominal height of mid rail is 21 inches.

⌘ A "standard toeboard" is 4 inches nominal in vertical height, with not more than ¼-inch clearance above floor level.

Protection for Floor Openings

- ⌘ Floor openings may be covered rather than guarded with rails.
- ⌘ When the floor opening cover is removed,
 - ☒ a temporary guardrail shall be in place,
 - ☒ or an attendant shall be stationed at the opening to warn personnel.
- ⌘ Every floor hole into which persons can accidentally walk shall be guarded by either:
 - ☒ A standard railing with toeboard, or
 - ☒ A floor hole cover of standard strength and construction.

Protection of Open-Sided Floors & Platforms

- ⌘ Every open-sided floor or platform 4 feet or more above adjacent floor or ground level shall be guarded by a standard railing on all open sides.
- ⌘ Except where there is an entrance to a ramp, stairway, or fixed ladder.
- ⌘ The railing shall be provided with a toeboard wherever, beneath the open sides:
 - ⌘ Persons can pass,
 - ⌘ There is moving machinery, or
 - ⌘ There is equipment with which falling materials could create a hazard.

Protection of Open-Sided Floors & Platforms

⌘ Regardless of height, open-sided floors, walkways, platforms, or runways above or adjacent to dangerous equipment, pickling or galvanizing tanks, degreasing units, and similar hazards shall be guarded with a standard railing and toeboard.

Stairway Railings & Guards

⌘ Every flight of stairs with four or more risers shall have standard stair railings or standard handrails.

- ⊗ On stairways less than 44 inches wide having both sides enclosed, at least one handrail shall be affixed, preferably on the right side descending.
- ⊗ On stairways less than 44 inches wide with one open side, at least one stair rail shall be affixed on the open side.
- ⊗ On stairways less than 44 inches wide having both sides open, two stair rails shall be provided, one for each side.
- ⊗ On stairways more than 44 inches wide, but less than 88 inches, one handrail shall be provided on each enclosed side and one stair rail on each open side.
- ⊗ On stairways 88 inches or more in width, one handrail shall be provided on each enclosed side, one stair rail on each open side, and one intermediate stair rail placed approximately in the middle of the stairs.

Standard Stair Railing

- ⌘ The vertical height shall be not more than 34 inches nor less than 30 inches from the upper surface of the top rail to the surface of the tread.
- ⌘ The lengthwise member shall be mounted directly on a wall or partition by means of brackets attached to the lower side of the handrail in order to keep a smooth, unobstructed surface along the top and both sides of the handrail.
- ⌘ The supports for the rail shall be 3 inches from the wall and be no more than 8 feet apart.
- ⌘ The height of handrails shall be no more than 34 inches nor less than 30 inches from the upper surface of the handrail to the surface of the tread

Fixed Industrial Stairs

- ⌘ Fixed Industrial Stairs shall be provided for access to and from places of work where operations necessitate regular travel between levels.
- ⌘ OSHA requirements include:
 - ☒ Fixed industrial stairs shall be strong enough to carry five times the normal anticipated live load.
 - ☒ At the very minimum, any fixed stairway shall be able to carry safely a moving concentrated load of 1000 pounds.
 - ☒ All fixed stairways shall have a minimum width of 22 inches.
 - ☒ Fixed stairs shall be installed at angles to the horizontal of between 30 degrees and 50 degrees.
 - ☒ Vertical clearance above any stair tread to an overhead obstruction shall be at least 7 feet measured from the leading edge of the tread.

Inspecting Stairs

⌘ Handrails and Stair rails:

- A. Lack of
- B. Placement
- C. Smoothness of surface
- D. Strength
- E. Clearance between rail and wall or other object

⌘ Treads:

- A. Strength
- B. Slip resistance
- C. Dimensions
- D. Evenness of surface
- E. Visibility of leading edge

⌘ Improper/inadequate design, construction or location of staircases.

⌘ Wet, slippery, or damaged walking or grasping surfaces.

⌘ Improper illumination... there is no general OSHA standard for illumination levels. The Illuminating Engineering Society publications should be consulted for recommendations.

⌘ Poor housekeeping

Walking and Working Surfaces

If you have any questions or concerns
contact the

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