

§1626. Stairwells and Stairs.

(a) General.

(1) Stairways shall be at least 24 inches in width and shall be equipped with stair rails, handrails, treads, and landings.

(2) Railings and toeboards meeting the requirements of Article 16 of these safety orders shall be installed around stairwells.

(b) The following requirements apply to all stairways as indicated:

(1) Temporary stairways that will not be a permanent part of the structure on which construction work is being performed shall be at least 24 inches in width. The stairway shall have landings at each floor, or level, of not less than 30 inches in the direction of travel and extend at least 24 inches in width at every 12 feet or less of vertical rise.

(2) Stairs shall be installed between 30° and 50° from horizontal.

(3) Riser height and tread depth shall be uniform within each flight of stairs, including any foundation structure used as one or more treads of the stairs. Variations in riser height or tread depth shall not be over 1/4-inch (0.6 cm) on any stairway.

(4) Where doors or gates open directly on a stairway, a platform shall be provided, and the swing of the door shall not reduce the effective width of the platform to less than 20 inches (51 cm).

(5) Unprotected sides and edges of stairway landings shall be provided with railings. Design criteria for railings are prescribed in Section 1620 of these safety orders.

(6) Metal pan landings and metal pan treads, when used, shall be secured in place before filling with concrete or other material.

(7) All parts of stairways shall be free of hazardous projections, such as protruding nails.

(8) Slippery conditions on a stairway shall be eliminated before the stairway is used to reach another level.

(c) Stair rails and handrails. The following requirements apply to all stairways as indicated:

(1) Stairways having four or more risers or rising more than 30 inches (76 cm), whichever is less, shall be equipped with:

(A) At least one handrail; and

(B) A stair rail consisting of a top rail and mid-rail along each unprotected side or edge.

(2) Winding and spiral stairways shall be equipped with a handrail offset sufficiently to prevent walking on those portions of the stairways where the tread width is less than 6 inches (15 cm).

(3) The height of stair rails shall be not less than 34 inches nor more than 38 inches from the upper surface of the stair rail to the surface of the tread, in line with the face of the riser at the forward edge of the tread.

(4) Mid-rails shall be located at a height midway between the top edge of the stair rail and the stairway steps.

(A) Screens, mesh, or other material, when used in lieu of mid-rails, shall extend from the top rail to the stairway step, and along the entire opening between top rail supports.

(B) Other structural members, when used, shall be installed such that there are no openings in the stair rail that are more than 18 inches (46 cm) wide.

(5) Handrails and the top rails of stair rails shall be capable of withstanding, without failure, a force of at least 200 pounds (890 n) applied within 2 inches (5 cm) of the top edge, in any downward or outward direction, at any point along the top edge.

(6) The height of handrails shall be not less than 34 inches nor more than 38 inches from the upper surface of the handrail to the surface of the tread, in line with the face of the riser at the forward edge of the tread.

(7) When the top edge of a stair rail also serves as a handrail, the height of the top edge shall be not less than 34 inches nor more than 38 inches from the upper surface of the stair rail to the surface of the tread, in line with the face of the riser at the forward edge of the tread.

(8) Stair rails and handrails shall be so surfaced as to prevent injury to employees from punctures or lacerations, and to prevent snagging of clothing.

(9) Handrails shall provide an adequate handhold.

(10) The ends of stair rails, handrails and mid-rails shall be constructed so as not to constitute a projection hazard.

(11) Handrails that will not be a permanent part of the structure being built shall have a minimum clearance of 3 inches (8 cm) between the handrail and walls, stair rails, and other objects.

(d) Temporary Service. The following requirements apply to all stairways as indicated:

(1) Except during stairway construction, foot traffic is prohibited on stairways with pan stairs where the treads and/or landings are to be filled in with concrete or other material at a later date, unless the stairs are temporarily fitted with wood or other solid material at least to the top edge of each pan.

(2) Except during stairway construction, foot traffic is prohibited on skeleton metal stairs where permanent treads and/or landings are to be installed at a later date, unless the stairs are fitted with secured temporary treads and landings long enough to cover the entire tread and/or landing area.

(3) Treads for temporary service shall be made of wood or other solid material, shall cover the full width and depth of the stair and shall be supported to prevent undue deflection.

(4) Temporary treads and landings shall be replaced when worn below the level of the top edge of the pan.

