

# Eave Barriers



- (1) When a system of eave barriers is provided to prevent falls from roofs, the barrier, unless of solid construction, shall be in accordance with the provisions of Article 16, Standard Railings.
- (2) The barrier system shall be securely anchored at eave level or supported by ropes securely tied to substantial anchorages on the roof.
- (3) If the barrier system is to be moved from one work area to another, employees performing the moving operation shall be protected by the use of safety belts and lines.

## **§1620. Design and Construction of Railings.**

Railings required by these Orders, except as otherwise provided, shall conform to the following standards:

- (a) Railings shall be constructed of wood or in an equally substantial manner from other materials, and shall consist of the following:

(1) A top rail not less than 42 inches or more than 45 inches in height measured from the upper surface of the top rail to the floor, platform, runway or ramp.

(2) A mid-rail shall be halfway between the top rail and the floor, platform, runway or ramp when there is no wall or parapet wall at least 21 inches (53 cm) high.

(A) Screens, mesh, intermediate vertical members, solid panels or equivalent members, may be used in lieu of a mid-rail subject to the following:

1. Screens and mesh, when used, shall extend from the top rail to the floor, platform, runway or ramp and along the entire opening between top rail supports.

2. Intermediate vertical members (such as balusters), when used between posts, shall be installed such that there are no openings greater than 19 inches (48 cm) wide.

3. Other intermediate members (such as solid panels, or equivalent members) shall be installed such that there are no openings that are more than 19 inches (.5 m) wide.

(b) Wood railings.

(1) "Selected lumber" (see definitions), free from damage that affects its strength, shall be used for railings constructed of wood.

(2) Wood posts shall be not less than 2 inches by 4 inches in cross section, spaced at 8-foot or closer intervals.

(3) Wood top railings shall be smooth and of 2-inch by 4-inch or larger material. Double, 1-inch by 4-inch members may be used for this purpose, provided that one member is fastened in a flat position on top of the posts and the other fastened in an edge-up position to the inside of the posts and the side of the top member. Mid-rails shall be of at least 1-inch by 6-inch material.

(4) The rails shall be placed on that side of the post which will afford the greatest support and protection.

(c) All railings, including their connections and anchorage, shall be capable of withstanding without failure, a force of at least 200 pounds applied to the top rail within 2 inches of the top edge, in any outward or downward direction, at any point along the top edge.

(1) When the 200 pound test load is applied in a downward direction, the top edge of the guardrail shall not deflect to a height less than 39 inches above the walking/working level.

(d) Mid-rails, screens, mesh, intermediate vertical members, solid panels, and equivalent members shall be capable of withstanding, without failure, a force of at least 150 pounds (666 N) applied in any downward or outward direction at any point along the mid-rail, screen, mesh, or other intermediate member.

(e) Railings exposed to heavy stresses from employees trucking or handling materials shall be provided additional strength by the use of heavier stock, closer spacing of posts, bracing, or by other means.

(f) The ends of the rails shall not overhang the terminal posts, except where such overhang does not constitute a projection hazard.

(g) Railings shall be so surfaced as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.

(h) Steel banding and plastic banding shall not be used as top rails or mid-rails.

### **§1621. Railings and Toeboards.**

(a) Unless otherwise protected, railings as set forth in Section 1620 shall be provided along all unprotected and open sides, edges and ends of all built-up scaffolds, runways, ramps, rolling scaffolds, elevated platforms, surfaces, wall openings, or other elevations 7 1/2 feet or more above the ground, floor, or level underneath.

#### **EXCEPTIONS:**

(1) Float and ladder jack scaffolds.

(2) Bricklayers' and masons' scaffolds used in accordance with Sections 1641 (e) and 1644(a)(6).

(3) During demolition on the floor or surface being demolished.

(b) A standard toeboard shall be 4 inches (nominal) minimum in vertical height from its top edge to the level of the floor, platform, runway, or ramp. It shall be securely fastened in place and have not more than 1/4-inch clearance above floor level. It may be made of any substantial material, either solid, or with openings not over one inch in greatest dimension. Toeboards shall be provided on all open sides and ends of railed scaffolds at locations where persons are required to work or pass under the scaffold and at all interior floor, roof, and shaft openings.

**NOTE:** Except for structural steel crafts.

(b) Where material is piled to such height that a standard toeboard does not provide protection, paneling or screening from floor to intermediate rail or top rail shall be provided. Where such paneling or screening extend to the toprail, midrails may be omitted.

# EMPLOYEE TRAINING AND INSTRUCTION RECORD

**Subject: Eave Barriers**

Location: \_\_\_\_\_

Instructor's name & Signature: \_\_\_\_\_

Date of Session:    /    /    Time Started    :    am / pm    Time Finished    :    am / pm

**Please print your name and job title. Then sign your name.**

## ATTENDEES:

Print Name	Job Title	Signature