

Keep Up Your Guard At Elevated Locations

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Not all construction activities are conducted at ground level. Sometimes workers are working at elevated locations and a fall from the elevation can seriously injure or kill a worker. As the second leading cause of fatality in the workplace (homicide is the first), falls must be taken seriously on the job. Employers should implement a fall safety program by identifying potential fall hazards throughout the workplace, training employees, placing guardrails around elevated locations, and - where necessary - providing fall protection equipment.

Guardrails, along with other fall protection measures, can protect workers when they are working at heights. Guardrails not only protect workers from falls they also act as a barrier to prevent tools and equipment from falling on workers below. Wood, metal pipe, structural metal, and other suitable materials may be used to construct guardrails. They should have a smooth top rail, midrail, and posts. The top rail's upper surface should be 42 to 45 inches tall. The midrail needs to be halfway between the top rail and the surface. If overhead clearance does not allow for a 42-inch guardrail, a lower rail should be installed. The ends of the rails must not overhang the terminal posts so much that people or equipment would run into them.

To protect employees from falls, guardrails and their connections and anchorages must withstand a live load of 20 pounds per linear foot applied outward or downward on the top rail. For heavy stresses from crowds, trucking, and handling materials, additional strength is required by use of heavier stock, closer spacing of posts, bracing, or other methods.

Toeboards are required if the elevated worksite is 6 feet or more above working employees to prevent a hazard from falling tools, material, or equipment. They may be constructed of wood, concrete, metal, or at least 1-inch metal mesh. The toeboard should be 3 1/2 inches tall. The bottom clearance (or gap) must not exceed 1/4-inch.

In buildings, guardrails are required on all open sides of elevated work locations that are more than 30 inches above the floor, ground, or other working areas. The elevated work locations include roof openings, open and glazed sides of buildings, balconies, porches, platforms, runways, and ramps. For other worksites that are not buildings or building structures, guardrails are required on open sides of the elevated work locations that are 4 feet or more above the ground.

There are exceptions to the guarding rules for specific industries and situations. The exceptions have specific guarding requirements or may allow removable guards. If removable guards are used, they should be fixed or tied off to prevent them falling on workers below. For more specific information, see the full text of California Title 8, Sections 3209 and 3210: Standard Guardrails and Guardrails at Elevated Locations. □