



Roofing Safety: Slips and Falls

Of all the accidents associated with roofing, falls are not only the most common; they are also likely to cause the most serious injuries. About 30 percent of injuries to roofers are sustained as a result of falls or slips.

Sections 1730 and 1731 of Title 8 of the California Code of Regulations pertain to roofing operations. This Tailgate Toolbox topic summarizes both Sections. Section 1731 applies instead of Section 1730 for roofing work on new production-type residential construction with roof slopes 3:12 or greater. Refer to the regulations for exact wording and specific requirements. When these regulations are followed, many falls and resulting injuries can be avoided.

Single-Unit Roof Coverings, Slopes 0:12-4:12

This part of Section 1730 applies to roofs with a height more than 20 feet and when using backward-pulling machinery, such as felt-layers, regardless of height.

- ◆ Install flagged warning lines, with a minimum tensile strength of 500 pounds, 34 to 45 inches above the roof surface to warn workers of the roof edge.
- ◆ When possible, place headers consisting of sheets of roofing or other materials parallel to the roof edge.
- ◆ Place warning lines and headers no closer than 5 feet from the roof edge.

When using felt-laying machines or other equipment pulled by an operator who walks backwards or motorized equipment on which the operator rides, the headers shall be no closer than 10 ft. and the warning lines no closer than 5 ft. from roof edges. When conditions prohibit the use of headers, the warning lines shall be placed no closer than 10 ft. from roof edges that are perpendicular to the direction in which the operator is moving.

Connect material handling and storage areas to the work area with a clear access path using two warning lines.

Single-Unit Roof Coverings

On roofs higher than 20 feet, protect workers by one or more of the following: parapets 24 inches or higher, personal fall protection, catch platforms, scaffold platform, eave barriers, standard toeboards and railings. Do not use backward-pulling equipment.

Multiple-Unit Roof Coverings Slopes 0:12-5:12

Use a roof jack system or a 24-inch high parapet on roofs more than 20 feet high.

Multiple-Unit Roof Coverings Slopes > 5:12

On roofs more than 20 feet high, use one or more of the following: parapets 24 inches or higher, personal fall protection, catch platforms, scaffold platforms, eave barriers, roof jacks (personal fall protection must be used with roof jacks on slopes greater than 7:12).

New Production-type Residential Construction

On roof slopes 3:12 through 7:12 and eave height greater than 15 feet employees shall be protected by 1 or more of the these - personal fall protection, catch platforms, scaffold platforms, eave barriers, standard railings and toeboards, and roof jack systems.

On roof slopes greater than 7:12, regardless of height, employees shall be protected by 1 or more of the these - personal fall protection, catch platforms, scaffold platforms, standard railings and toeboards.

Fall Hazards Training

- ◆ Provide training to employees to ensure specific awareness of roofing fall hazards.
- ◆ Document employee training.

Other Safe Work Practices

- ◆ Keep your work area free of trash and equipment.
- ◆ Store materials neatly and away from roof edges.
- ◆ Cover or barricade skylights and other roof openings.

Discussion Questions

- What is the slope of the roof you are working on?
- Are the protections required by law present?
- What else can be done at this worksite to make your work safe?

Resources:

Cal/OSHA Pocket Guide for the Construction Industry and other educational materials can be obtained from the Cal/OSHA publications website

<http://www.dir.ca.gov/dosh/puborder.asp>

or obtained from a Cal/OSHA District Office.

Cal/OSHA Construction Safety Orders can be reviewed at: <http://www.dir.ca.gov/Title8/sub4.html>

Health & Safety Guide for the Commercial Roofing Industry – Booklet No. 78-194 from:

NIOSH

4676 Columbia Parkway, Cincinnati, Ohio 45226

Note: The information provided is not meant to be either a substitute for or legal interpretation of the occupational safety and health regulations. Readers are cautioned to refer directly to Title 8 of the *California Code of Regulations* for detailed information regarding the regulation's scope, specifications, and exceptions and for other requirements that may be applicable to their operations.