Understanding OSHA:
Fall Protection on Scaffolds and Aerial Lifts

The Occupational Safety and Health Administration (OSHA) has specific regulations that address fall-protection requirements for workers on supported scaffolds and aerial lifts. To help clarify the guidelines, OSHA has published a Guide to Scaffold Use in the Construction Industry.

Regarding aerial lifts, such as extensible and articulating boom platforms, the guide explains employees must be protected from falls through use of a personal fall-arrest system with the lanyard attached to the boom or basket. Regarding scaffolds, depending on the scaffold type, OSHA regulations require each employee more than 10 feet above a lower level to be protected from falls by using guardrails, a fall-arrest system or both.

According to OSHA’s guide, a fall-arrest system is required for the following types of scaffolding: boatswains’ chair, catenary, float, needle beam and ladder jack. A fall-arrest system also is required for employees on scaffolds that have no guardrail systems.

Use of a guardrail system with a minimum 200-pound top-rail capacity is required for employees on a self-contained adjustable scaffold when the platform is supported by the frame structure.

There are certain situations where OSHA requires use of a personal fall-arrest system plus guardrails. When employees are on self-contained adjustable scaffolds where the platform is supported by ropes, a personal fall-arrest system and guardrails are required.

If a personal fall-arrest system is the chosen or required method of fall protection for employees on scaffolds, the personal fall-arrest system must meet the requirements of 1926.502(d), and the system must be attached by lanyard to a vertical lifeline, horizontal lifeline or scaffold structural member. When vertical lifelines are used, they must be fastened to a fixed safe point of anchorage; they must be independent of the scaffold; and they also must be protected from sharp edges and abrasion. Safe points of anchorage include structural members of buildings but do not include standpipes, vents, other piping systems, electrical conduit, outrigger beams or counterweights.

When horizontal lifelines are used, they must be secured to two or more structural members of the scaffold, or they may be looped around suspension and independent suspension lines (on equipped scaffolds) above the hoist with the brake attached to the end of the scaffold. Horizontal lifelines should not be attached only to the suspension ropes.

When lanyards are connected to horizontal lifelines or structural members on a single-point or two-point adjustable suspension scaffold, the scaffold must be equipped with additional independent support lines and automatic locking devices capable of stopping the fall of the scaffold in the event one or both of the suspension ropes fail. The independent support lines should be equal in number and strength to the suspension ropes.
Vertical lifelines, independent support lines and suspension ropes must not be attached to each other, and they cannot be attached to or use the same point of anchorage. Vertical lifelines, independent support lines and suspension ropes also must not be attached to the same point on the scaffold or personal fall-arrest system.

Roofing contractors intending to use guardrails as the means of fall protection for employees on a scaffold must take appropriate measures to ensure the guardrails are OSHA-compliant. Guardrails must be installed along all open sides and ends before releasing the scaffold for use by employees. Interestingly, if the platform’s front edge is 14 inches or less from the face of the work, OSHA does not require the use of guardrails.

Also, roofing contractors should ensure the guardrail is the appropriate height. The appropriate height for a guardrail depends on when the scaffold was manufactured and placed in service. Scaffolds manufactured and placed in service after Jan. 1, 2000, must be between 38 and 45 inches. Scaffolds manufactured and placed into service before Jan. 1, 2000, can be between 36 and 45 inches. When the crosspoint of crossbracing is used as a top rail, it must be between 38 and 48 inches above the work platform. Midrails must be installed about halfway between the top rail and the platform surface. When a crosspoint of crossbracing is used as a midrail, it must be between 20 and 30 inches above the work platform.

For more information and to view OSHA’s Guide to Scaffold Use in the Construction Industry, visit https://osha.gov/Publications/OSHA3150/osha3150.html.