



Safety & Health

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Roof Holes Remain Death Traps for Roofers

This article is the latest in a series on falls and fall protection. We have addressed many facets of fall protection in roofing. Most recently, we covered the proper setup and use of personal fall arrest systems.

This article emphasizes the dangers of roof holes and the importance of proper protection. In the next issue we'll focus on unprotected roof edges and the available systems to prevent roof edge falls.

Leaving a roof hole unguarded or uncovered or using improper materials to cover it is like setting a trap for your coworkers and you. So is leaving a cover unsecured. Consider this scenario. A roofer sees an unmarked and unsecured plywood board on the roof. He lifts one end and steps forward to walk the board upright – and steps directly into the hole. This is one of the leading causes of falls through roof holes. Think about what caused the problem. If the cover had been marked, the roofer would have known there was a hole. If it had been secured, the roofer would not have been able to lift it and walk it upright.

If the cover were made of a material designated only for roof hole covers, the roofer would have had even more warning that it should not be moved out of the way. Never use insulation boards, pallets, felt, or other makeshift materials for roof hole covers. They won't support the weight of a worker and can be easily displaced.

Finally, when lifting any material from the roof surface, be sure to rotate them so you can see the roof beneath before you step forward.



Figure 1. This roofer does what many have done. Pick up the plywood. Walk it forward. And step into a hole.
(Courtesy of Ellis Fall Safety Solutions, www.FallSafety.com)

Skylights may also be death traps. They often give roofers a false sense of security. Glass or plastic skylights are not

designed to hold a person's weight even when they are new. And they become even weaker with age. Many roofers have fallen to their deaths through skylights by merely sitting on them. Slips and trips around unprotected skylights are also lethal.

Unless skylights are labeled as meeting the OSHA requirements, the glass or plastic skylight domes must be removed and the opening securely covered and marked. Or guardrails can also be installed. You might see a protective screen over the skylight. Screens must be strong enough to withstand an impact load of 200 pounds and not deflect downward sufficiently to break the skylight.

If you are not taking these precautions, then you are taking needless risks with your life. Needless risks that make falls through skylights responsible for 11 percent of roofer deaths from falls.



OSHA considers any opening in a walking or working surface larger in diameter than 2 inches to be a hole. Why so small? No worker could fall through a hole that small. But tools and materials can. And small holes can become tripping hazards. So they must be covered or guarded too.

In summary, OSHA requires that workers be protected from falling into all roof holes – including skylights – by the use of covers, guardrails, or personal fall arrest systems. Whenever a roof hole exists, it must be covered or guarded. If it is covered, it must meet the following OSHA requirements:

Covers must be secured to prevent accidental removal.

Covers must be marked using a color-coding system or with the word "Hole" or "Cover."

Covers must support twice any anticipated load, which would include the weight of employees, materials and equipment.

On new construction, the general contractor should be responsible for making sure all roof holes are properly guarded or covered.

On re-roofing jobs, this responsibility falls squarely on the roofing contractor and the roofing crew. Don't take shortcuts that could lead to serious injuries and fatalities.

You can also reduce your risk of falling through roof openings or holes by practicing good housekeeping. Pick up tools and debris that could pose a tripping hazard.

Guarding and covering all roof holes is a simple proposition. It's feasible, economical, and will prevent serious injury and death.

