

## Roofer Falls 30 Feet through Skylight

### INCIDENT FACTS

**REPORT #:** 71-188-2019s

**REPORT DATE:** November 22, 2019

**INCIDENT DATE:** June 6, 2017

**VICTIM:** 47 years old

**INDUSTRY:** Roofing contractors

**OCCUPATION:** Roofer

**SCENE:** Commercial warehouse roof

**EVENT TYPE:** Fall



A 47-year-old roofer was cleaning the roof of a commercial warehouse when he fell through a skylight.

He had worked six years for a roofing contractor that does roofing, cleaning, and maintenance work on commercial building roofs.

On the day of the incident, he was a member of a six-person crew cleaning and removing debris from a commercial warehouse roof. Workers were using leaf blowers and brooms to sweep debris, which they then shoveled into plastic bags for removal. The flat roof measured 200 feet by 320 feet; it had 97 unprotected skylights.

The supervisor, who was also the safety monitor, was standing about 20 feet from the victim when he saw him stepping backward toward a skylight. The supervisor yelled “skylight!” to warn him. The victim, who had been talking with a coworker, caught his foot on the skylight frame and stumbled backward. The coworker reached out to grab him, but was unable to.

The victim fell onto the unprotected plastic dome skylight cover, which broke, and he fell through the skylight. He landed 30 feet below on a concrete floor.

## Investigators found:

- 1) Inappropriate fall protection was used. Safety monitor and warning line systems should not be used when unprotected skylights are present. Though warning lines must be used around unprotected sides and edges of a low pitch roof work area.
- 2) The employer did not protect skylights.
- 3) The building owner did not protect skylights.



Skylight through which the roofer fell 30 feet.



Incident scene showing the roof of the commercial warehouse. The arrow shows the skylight the roofer fell through. The circle shows the warning line system that was used. The warehouse roof had 97 skylights. All were unprotected.





Position of the warning line system used. Due to the employer's misunderstanding of safety requirements, the warning line system was incorrectly setup around the safety monitor. When they needed to move to a different area, three workers each picked up a stanchion and walked the system with the safety monitor inside to the new location. In the background is the skylight the victim fell through.

## Requirements

Employers must ensure that employees exposed to fall hazards of 4 feet or more while engaged in work, other than roofing or leading edge work, on low pitched roofs use one of the following: fall restraint system; fall arrest system; positioning device system; safety monitor and warning line system; or safety watch system.

[See WAC 296-155-24609\(7\)\(b\)](#)



## Requirements

Whenever there is a danger of falling through an unprotected skylight opening, or the skylight has been installed and is not capable of sustaining the weight of a 200 pound person with a safety factor of 4, employers must provide standard guardrails on all exposed sides in accordance with [WAC 296-155-24615\(2\)](#) or the skylight must be covered in accordance with [WAC 296-155-24615\(3\)](#).

See [WAC 296-155-24609\(4\)\(d\)](#)

## Recommendations

- Building owners should install protective guards or screens over skylights or install guardrails to prevent falls through skylights by maintenance or other personnel who may enter the roof.
- Employers should provide skylight safety nets and train employees to properly use them.
- State building code officials should consider including a provision in the building code which would require all skylights in new or renovated buildings to either have a protective cover or be of sufficient strength to prevent a worker from falling through.

# FATALITY NARRATIVE



Example of skylights guarded with screens.

Photo courtesy of Plasteco

## Resources

Preventing Falls of Workers through Skylights and Roof and Floor Openings.  
NIOSH [www.cdc.gov/niosh/docs/2004-156/default.html](http://www.cdc.gov/niosh/docs/2004-156/default.html)

Preventing Falls through Skylights Video (in English and Spanish). California  
Dept. of Public Health  
[www.cdph.ca.gov/Programs/CCDPHP/DEODC/OHB/FACE/Pages/SkylightAction.aspx](http://www.cdph.ca.gov/Programs/CCDPHP/DEODC/OHB/FACE/Pages/SkylightAction.aspx)

*This bulletin was developed to alert employers and employees of a tragic loss of life of a worker in Washington State and is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the fatality.*

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