

INCIDENT FACTS

REPORT #:

71-190-2020

REPORT DATE:

January 6, 2020

INCIDENT DATE:

September 3, 2016

VICTIM:

39 years old

INDUSTRY:

Roofing contractors

OCCUPATION:

Roofer

SCENE:

Storage building at manufacturing plant

EVENT TYPE:

Fall



Area of building where the roofer fell through rotten roof.

[For a slideshow version, click here.](#)



This narrative is an alert about the serious traumatic injury of a worker and is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or the cause of the injury. Developed by the WA State Fatality Assessment and Control Evaluation (FACE) Program and the Division of Occupational Safety and Health (DOSH), WA State Dept. of Labor & Industries. The FACE Program is supported in part by a grant from the National Institute for Occupational Safety and Health (NIOSH grant# 5U600H008487). For more information visit www.lni.wa.gov/safety-health/safety-research/ongoing-projects/work-related-fatalities-face#w-face.

Rofer Falls 20 Feet through Rotten Roof

SUMMARY

A 39-year-old roofer was severely injured when he fell 20 feet through a rotten roof.

He had 22 years of experience in the roofing industry and had been with his employer, a roofing contractor, for a year.

He was a member of a four-person crew that had been tearing-off and replacing the flat (low pitch) roof of a manufacturing storage facility for a month. On the day of the incident, they were working to remove three layers of roofing materials to check for rotten spots.

Warning lines were set up near the roof's edges and a safety monitor was used. Workers were not required to use personal fall protection while inside the warning lines. Outside of the warning lines, they were required to use a personal fall arrest system consisting of a full body harness with ropes tied-off to anchor points. Most of the visible rotten roof was in the area outside of the warning lines.

The roofer was inside the warning lines near the roof ridge using a shovel to scrape off shingles and insulation. As he stepped backward, a patch of rotten roof gave way and he fell through, landing 20 feet below on wood flooring. He was severely injured and suffered numerous fractures and internal injuries.

Investigators found that a worker had previously placed an orange cone to mark a rotten spot near where the roofer broke through the roof. The spot he fell through was three feet away from the cone and under three layers of roofing material so he was not able to recognize it was rotten. Workers had also been walking across the roof in the area for several weeks. At the time of the incident, the safety monitor was on the other side of the roof ridge throwing debris into a truck below.

After the incident, the employer required workers to use a personal fall arrest system at all times.

REQUIREMENTS

- Employers must ensure that all surfaces on which employees will be working or walking on are structurally sound and will support them safely prior to allowing employees to work or walking on them. See [WAC 296-155-24605\(1\)](#)
- Ensure that the appropriate fall protection system is provided, installed, and implemented when employees are exposed to fall hazards of 10 feet or more to the ground or lower level while engaging in roofing work on a low-pitched roof. See [WAC 296-155-24611\(1\)\(a\)](#)
- Prior to permitting employees to start demolition operations, you must make an engineering survey, by a competent person, of the structure to determine structural integrity and possibility of unplanned collapse of any portion of the structure. See [WAC 296-155-775\(1\)](#)

RECOMMENDATIONS

FACE investigators concluded that, to help prevent similar occurrences:

- Erect guardrails around rotten roof areas to prevent access.
- Place a cover of standard strength and construction over localized rotten roof areas. (A sheet of plywood would have covered the rotted deck area in this case.)
- Use scaffolds and/or elevating work platforms to access the underside of a roof to remove rotted deck when site conditions allow their use.



Rotten roof that the roofer fell through.