

Rofer Falls Constructing Leading Edge of Metal Roof

INCIDENT FACTS

REPORT #: 71-237-2023s

REPORT DATE: April 10, 2023

INCIDENT DATE: July 13, 2022

WORKER: 35 years old

INDUSTRY: Framing Contractors

OCCUPATION: Roofer

SCENE: New warehouse construction site

EVENT TYPE: Fall from metal roof



FATALITY NARRATIVE



A 35-year-old roofer died while constructing the leading edge of the metal roof of a warehouse. He had worked for the contractor at a previous location and was on this worksite for five days.

FATALITY NARRATIVE



He was part of a nine-member crew installing the low-pitch roof. The crew started the job about a week before, at which point they installed anchors and nine lifelines on the roof.

On the day of the incident, the crew used a boom-supported elevating work platform to reach the rooftop. All wore full-body harnesses.

Shortly after they started, it began to rain, which made the roof slippery. They used the platform to get down and left their lifelines about 20 feet from where they got off the roof. When the rain stopped, they used the platform to get back onto the roof.

The roofer was walking toward his lifeline and about eight feet away from it when he fell from the unprotected edge. A coworker who witnessed the fall said he grabbed the steel framing as he fell but lost his hold and dropped 33 feet to the gravel warehouse floor.

The foreman performed CPR, but the roofer died at the scene.

Following the incident, investigators found:

- Fall protection equipment was not properly installed and used, specifically:
 - Roof anchors installed with unapproved and fewer screws than specified by the manufacturer.
 - Multiple lifelines attached to a single anchor.
 - Lifelines connected together and wrapped around beams.
- The employer did not have a required fall protection work plan on site.
- A walk around safety inspection had not been documented.



Photo 1. View of the incident scene where the roofers were installing the low-pitch metal roof. The mobile elevating work platform used to access the roof is in the bottom center of the photo.

FATALITY NARRATIVE



Photo 2. View of the area where the roofers were working and the leading edge they were constructing near where the roofer fell.



Photo 3. Closer view of the leading edge being constructed near where the roofer fell. Lifelines are located where the roofers were working, 20 feet away from the roof access point.



Photo 4. Inside of the warehouse where the roofer fell onto the gravel floor while constructing the leading edge of the roof.

FATALITY NARRATIVE

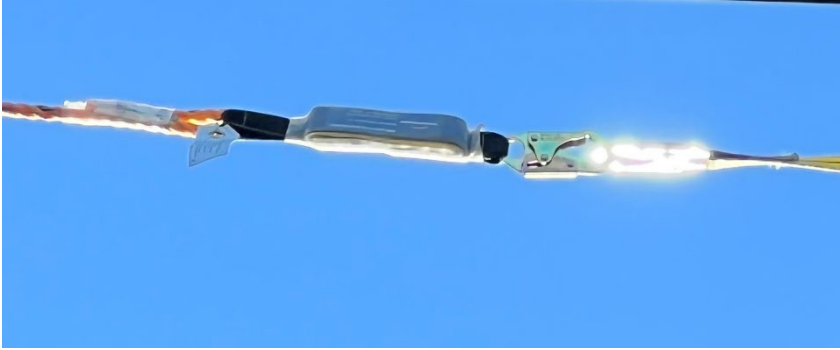


Photo 5. Two vertical lifelines connected together and used as a horizontal line.



Photo 6. Vertical lifeline wrapped around beam and connected to itself.

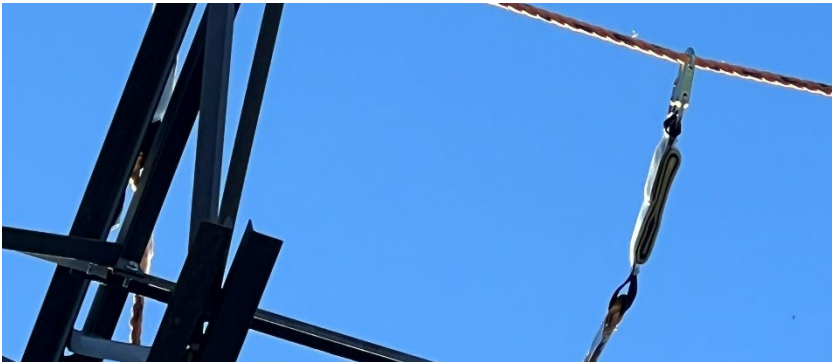


Photo 7. Vertical lifeline connected to unapproved horizontal line.



Photo 8. Two vertical lifelines connected to one roof anchor.

Requirements

- Ensure that a fall arrest system, fall restraint system, or positioning device system is provided, installed, and implemented in accordance with [WAC 296-880-400 Fall protection system specifications](#) when employees are exposed to fall hazards of six feet or more to the ground or lower level while constructing a leading edge. See [WAC 296-880-30005\(1\)\(b\)](#)

Requirements

Employers must:

- Develop and implement a written fall protection work plan including each area of the work place where the employees are assigned and where fall hazards of ten feet or more exist. See [WAC 296-880-10020\(1\)](#)

Requirements

Employers must:

- Document walk-around inspections and make documentation available for review. See [WAC 296-155-110 \(9\)\(b\)](#)

Recommendations

FACE investigators concluded that to help prevent similar occurrences employers should:

- Develop policies that require workers to always remain attached to lifelines and to place them so they are able to reattach and maintain 100% tie-off when they move between platforms and other surfaces.
- Provide and frequently reinforce training on proper use of fall protection equipment with emphasis on always attaching before detaching when switching lifelines so that workers maintain 100% tie-off.

Resources

[Manufacturer's procedures](#) for moving from the platform to an adjacent roof surface. Genie

[Falls in Construction/Leading Edge Work Video](#) from OSHA.
[Spanish version](#)

FATALITY NARRATIVE



This narrative was developed to alert employers and workers of a tragic incident 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 injury.

Developed by the Washington State Fatality Assessment and Control Evaluation (WA FACE) Program and the Division of Occupational Safety and Health (DOSH), Washington State Dept. of Labor & Industries. WA FACE is supported in part by a grant from the National Institute for Occupational Safety and Health (NIOSH grant# 5U60OH008487). For more information visit www.lni.wa.gov/safety-health/safety-research/ongoing-projects/work-related-fatalities-face.