

HAZARD ALERT

Kentucky Occupational Safety and Health Surveillance-May 2023

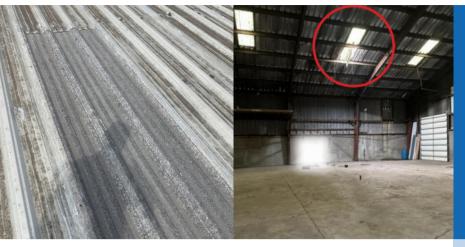


Photo 1: Fiberglass skylight on corrugated metal roof (Case 2).

Photo 2: Polycarbonate skylight that victim fell through (Case 3).

What is the hazard?

According to the Census of Fatal Occupational Injuries, 62 workers in the construction industry died due to falling through a surface or opening like a skylight in the U.S. in 2021. Since 1994, 7 construction workers in Kentucky have died due to falling through skylights. Three of the 7 fatalities occurred during the 10-month period from May 2022 through February 2023.²

The following deaths caused by falls through skylights occurred in Kentucky

Case 1: A demolition laborer fell while working on the roof of a building that was undergoing demolition. The employee was walking backward when he stepped onto a skylight in the roof and fell through it, falling approximately 19 feet to a concrete floor below. (2022)

Case 2: A roofing contractor was assisting a job foreman with the installation of a commercial grade rubberized roof coating. In the process, the victim stepped on a fiberglass skylight and fell 30 feet to the surface below. Post-incident, a non-employee family member of the foreman was attempting to retrieve tools left on the roof. While doing so, he also fell through a fiberglass skylight that was situated adjacent to the skylight involved in the fatal incident. The family member suffered non-life-threatening injuries. (2022)

Case 3: A roofing project manager was performing a post-purchase roof inspection for the buyer of a commercial warehouse. In the process the victim stepped on a polycarbonate skylight and fell 25 feet to the surface below. (2023) FATALITIES CAUSED BY FALLS THROUGH SKYLIGHTS

REQUIREMENTS:

- Employees must be protected from falling more than 6 feet through floor holes and skylights by personal fall arrest systems, covers, or guardrail systems erected around such openings. See 1926.501(b)(4)(j)
- Employers must provide a training program for each employee who might be exposed to fall hazards. The program should enable employees to recognize the hazards of falling and should train employees in the procedures to follow in order to minimize fall hazards.

See 1926.503 (a)(1)

RECOMMENDATIONS

- Perform a pre-job hazard analysis to identify potential fall hazards; plan control measures accordingly.
- Prior to beginning a job, ensure that all necessary fall protection systems are in working order.
- Conduct frequent scheduled and unscheduled inspections to ensure that a fall protection system is used consistently and correctly.
- Consider prevention through design (PtD) to "design out" or minimize hazards. By utilizing the Prevention through Design initiative, employers can eliminate fall hazards associated with skylights by excluding them from building designs. Facilities with existing skylights can phase out and remove existing skylights in lieu of repairing them, thus eliminating the hazard and future exposure.

FURTHER RESOURCES

Name of Resource	Resource Description	Resource Link
Falls in Construction: Skylights	Videos in English and Spanish from OSHA presenting a fall through skylight case and prevention recommendations.	<u>https://www.osha.gov/vtools/constr</u> <u>uction/skylight-fnl-eng-web</u>
Preventing Falls of Workers through Skylights and Roof and Floor Openings	This NIOSH Alert describes five deaths from falls through skylights and other openings with prevention recommendations.	<u>https://www.cdc.gov/niosh/docs/20</u> <u>04-156/default.html</u>
Action Page-Preventing Falls through Skylights	Webpage from the California Department of Public Health that has English and Spanish videos, handouts, and other resources about preventing falls through skylights.	https://www.cdph.ca.gov/Programs/ CCDPHP/DEODC/OHB/FACE/Pag es/SkylightAction.aspx
NIOSH Prevention through Design	Prevention through Design is a national initiative to prevent or reduce occupational injuries, illnesses, and fatalities through the inclusion of prevention considerations in all designs that impact workers.	<u>https://www.cdc.gov/niosh/topics/p</u> <u>td/default.html</u>

SOURCES

- 1. Construction Safety: Prevent Falls through Skylights and Other Openings. (2023, February 21). Safety+Health. https://www.safetyandhealthmagazine.com/articles/23594-construction-safety-prevent-falls-through-skylights-and-otheropenings.
- 2. Data source: The Kentucky Fatality Assessment and Control Evaluation (KY FACE) database.
- 3. Preventing Falls of Workers through Skylights and Roof and Floor Openings. (2004, August). The National Institute for Occupational Safety and Health (NIOSH). https://www.cdc.gov/niosh/docs/2004-156/pdfs/2004-156.pdf? id=10.26616/NIOSHPUB2004156
- 4. Centers for Disease Control and Prevention. (2013, October 9). Prevention through design. National Institute of Occupational Safety and Health. Retrieved April 14, 2023, from https://www.cdc.gov/niosh/topics/ptd/default.html



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