

FATALITY NARRATIVE

HVAC Technician Falls Through Skylight

Industry: Plumbing, heating and air conditioning contractors

Task: Maintenance of HVAC units

Occupation: HVAC technician

Type of Incident: Fall through skylight



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On June 15, 2012, a 44-year-old heating, ventilation, and air conditioning (HVAC) technician died when he fell through a skylight. The victim had worked for his employer, an HVAC contractor, for the previous four years. On the day of the incident, the victim and two other company employees were performing routine maintenance on rooftop HVAC units. The commercial building roof where they were working was flat and had unguarded skylights. The workers were not using fall protection. After they had been working for about four hours changing belts on HVAC units, the victim needed to go to their work van to get a belt. A coworker gave him the vehicle keys. As the victim was walking away from the coworker, he turned back towards him and began speaking to him. He then tripped on the lip of an unguarded skylight and fell through it. He landed approximately 26 feet below on a concrete floor.

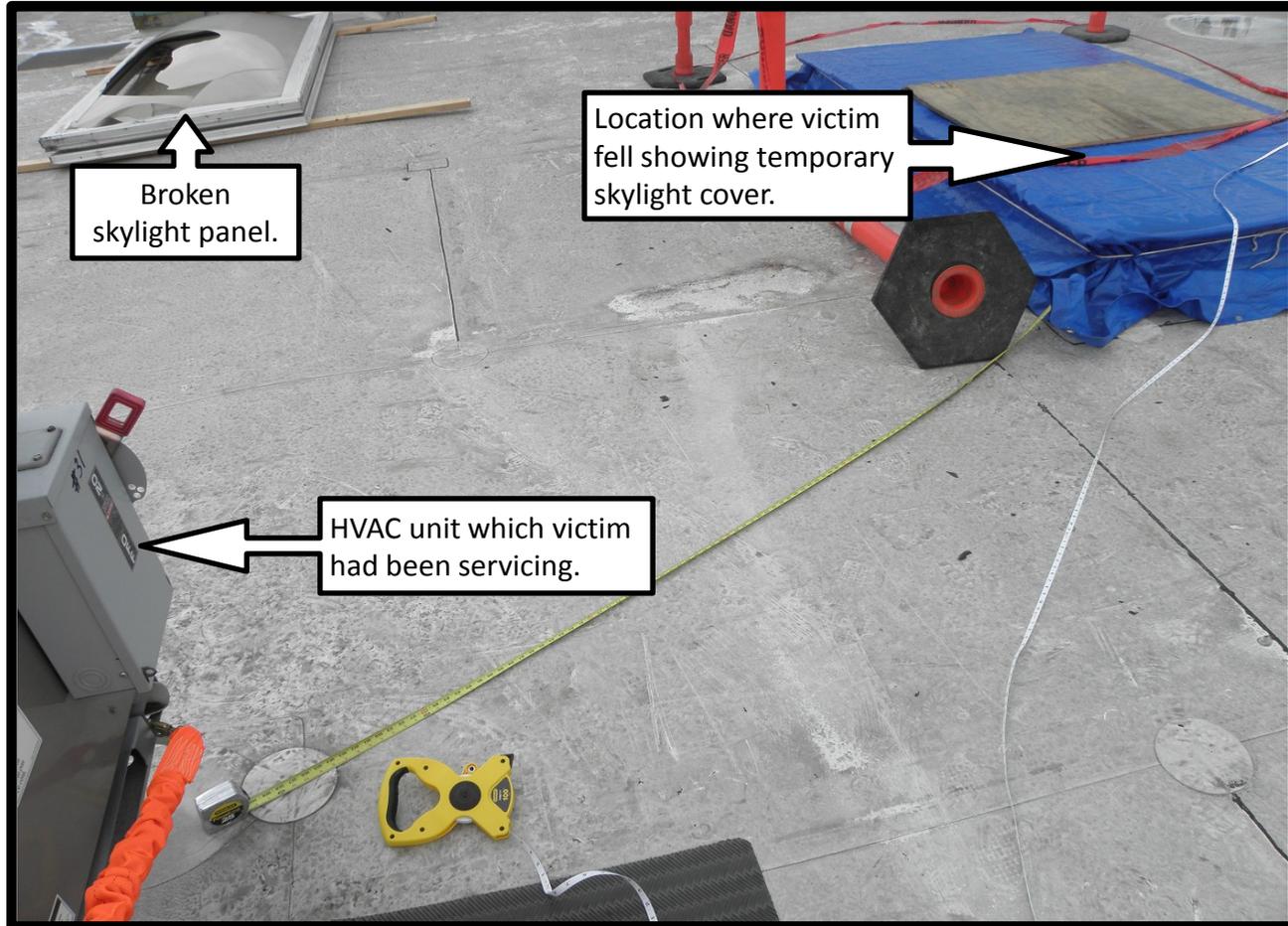


Skylight panel removed after the incident.



Skylight similar to one which victim fell through, located on the roof where he was working.

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Incident scene on roof where the HVAC technician had been working. The skylight opening through which the technician fell was covered after the incident. The skylight panel was removed.



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Requirements

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 296-155-24611(2).

<p style="text-align: center;"><u>1. FILL OUT THE SPECIFIC JOB INFORMATION.</u></p> <p>Company Name: _____</p> <p>Job Name: _____</p> <p>Date: _____</p> <p>Job Address: _____</p> <p>City: _____</p> <p>Job Foreman: _____</p> <p>Jobsite Phone: _____</p> <p style="text-align: center;"><u>2. FALL HAZARDS IN THE WORK AREA</u> INCLUDE LOCATIONS AND DIMENSIONS FOR HAZARDS</p> <p>Elevator shaft: _____</p> <p>Stairwell: _____</p> <p>Leading edge: _____</p> <p>Window opening: _____</p> <p>Outside static line: _____</p> <p>Roof eave height: _____</p> <p>Perimeter edge: _____</p> <p>Roof perimeter dimensions: _____</p> <p>Other fall hazards in the work area: _____</p>
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Excerpt of first few lines of a sample Fall Protection Work Plan.

For samples of Fall Protection Work Plans (FPWP), go to the Washington State L&I web site www.lni.wa.gov/Safety/Basics/Programs/FallProtectionConstruction/default.asp



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Requirements

When employees are working in the vicinity of skylights which have been installed and are not capable of sustaining the weight of a two hundred pound person with a safety factor of four, one of the following fall protection measures shall be implemented: See WAC 296-155-24609(4)(d)

- A standard guardrail system.
- Cover or screen.
- A personal fall arrest system consisting of a body harness, lanyard, connectors, and anchor points.



Example of portable skylight cover.



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Requirements

Personal protective equipment (PPE). Wherever hazards exist employers must:

- Do a hazard assessment for PPE use.
- Provide proper PPE.
- Train workers on safe PPE use.

(PPE alone should not be relied on to provide protection for employees. PPE should be used after all other reasonable means of reducing hazards have been carried out.) See WACs 296-800-16020, 296-800-16025, and 296-800-16005.



Personal fall arrest system.

Recommendations

- A hazard assessment should be completed by employers before employees perform rooftop work, whether that work involves maintenance or construction activities.
- Architects, designers, contractors, and building owners should consider guarding skylights with screens or guardrails to protect workers who must perform work on rooftops.



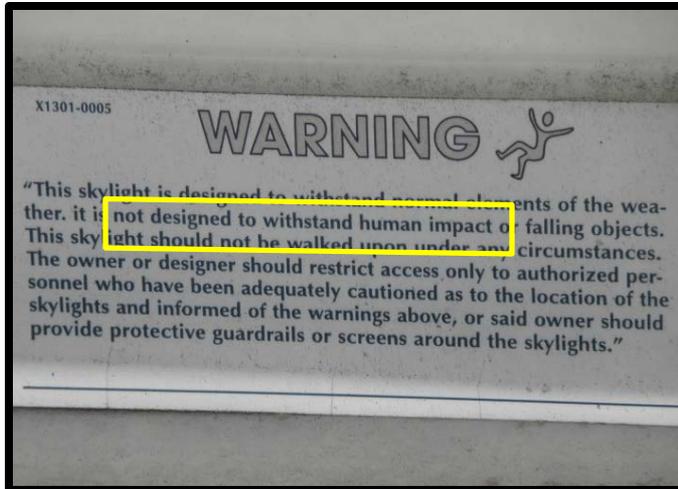
Skylights protected by guardrails.



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Unguarded skylight.
Note proximity to HVAC unit.



Warning decal on incident skylight.
“...not designed to withstand human impact...”



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Developed by Washington State Fatality Assessment and Control Evaluation (FACE) Program and the Division of Occupational Safety and Health (DOSH), Washington 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). For more information, contact the Safety and Health Assessment and Research for Prevention (SHARP) Program, 1-888-667-4277.

Statewide Statistics: This was number 28 of 63 work-related fatalities in Washington State during 2012, and was number 4 of 8 construction-related fatalities. *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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