



KY Fatality Assessment and Control Evaluation (FACE) Program

Roofing and Construction Workers Killed Due to High Winds

Case 1: On a windy day, a 73-year-old roofer and a roofing coworker arrived at a commercial construction site to roof a newly constructed building. The two roofers climbed an extension ladder to access the roof to determine where they were going to place their anchors to tie off. While reviewing the backside of the commercial structure, a gust of wind around 33 mph made the two roofers lose their balance and fall from the roof. The 73-year-old roofer landed first and the second roofer landed on top of him. Both men fell 15 and a half feet and landed on a sloped grassy area. The 73-year old roofer died at the scene.

Case 2: On a windy day, a 24 year-old Hispanic laborer was loading trusses on the outside ground level of a building construction site. At the same time, another worker was positioned on the roof above, transporting large pieces of plywood from a crane. A gust of wind ripped an 8 foot by 4 foot sheet of plywood from the rooftop worker's hands, causing it to sail 30 feet from the edge of the roof, where it plummeted toward the ground. It struck the Hispanic laborer, located at ground level, in the back of the head below the helmet. The injured worker was taken to a nearby trauma center where he later died.

Kentucky Haz Alert

June
2014

Volume 12, Issue 2

To Prevent Worker Injuries,

Employers should:

- Not allow workers to handle materials from rooftops or scaffolding during times of high wind.
- Provide safety training to any and all workers who may be exposed to fall hazards.

Employees should:

- Utilize appropriate fall protection devices during all phases of a roofing job.
- Utilize safety nets to help catch falling debris and falling workers.
- Not enter the hazardous area when materials are being transported overhead.

EMPLOYERS SHOULD NOT ALLOW WORKERS TO HANDLE MATERIALS FROM ROOFTOPS OR SCAFFOLDING DURING TIMES OF HIGH WIND

Handling heavy materials during times of high wind increases the likelihood that a worker can lose their grip and drop the materials. This presents a danger of those working on lower levels or on the ground to be struck by these materials. OSHA standard number 1910.269(x) defines high wind as 64.4 kilometers per hour (40 mph), or 48.3 kilometers per hour (30 mph) if the work involves material handling.

EMPLOYERS SHOULD PROVIDE SAFETY TRAINING TO ANY AND ALL WORKERS WHO MAY BE EXPOSED TO FALL HAZARDS

OSHA standard number 1926.503(a)(1) states that the employer shall provide safety training to employees when their job requires that they be working in an area where they are in danger of falling. The employer should ensure that all employees have been properly trained by a competent individual, and should test employees on this knowledge.

EMPLOYEES SHOULD UTILIZE APPROPRIATE FALL PROTECTION DEVICES DURING ALL PHASES OF A ROOFING JOB

Falls are the most common cause of serious workplace injury and death, and are the number one killer in the construction industry. No matter how small scale a job is or how little danger seems present, fall protection should always be utilized. OSHA standard number 1926.501(b)(2)(ii) states that an employee working from a height of 6 feet or higher should utilize a guardrail system, safety net system, or personal fall arrest system.

EMPLOYEES SHOULD UTILIZE SAFETY NETS TO HELP CATCH FALLING DEBRIS AND FALLING WORKERS

When working from heights above 6 feet, safety nets should be suspended directly below the working platform where roofers or other employees are working. OSHA regulations specify that the net should be drop-tested so that it can withstand a 300 lb. bag of sand being dropped on it. Other regulations regarding the proper use of safety nets can be found in OSHA standard number 126.502(c)(1). Having such a safety net could be instrumental in stopping a fall and protecting workers on the ground from falling debris.

EMPLOYEES SHOULD NOT ENTER THE HAZARDOUS AREA WHEN MATERIALS ARE BEING TRANSPORTED OVERHEAD

Hardhats can only offer so much protection from the forceful impact of falling debris. Even small debris dropped from as few as 10 feet can be deadly. Hazardous areas should be clearly marked and the employees should remain outside of these marked areas, maintaining situational awareness even when they near the marked-off borders. Employers should ensure that there is a clearly defined and marked barricade surrounding this area.

For more information, contact:

KY Fatality Assessment & Control Evaluation (FACE) Program
 Kentucky Injury Prevention and Research Center (KIPRC)
 333 Waller Ave., Suite 242
 Lexington, KY 40504
 1-800-204-3223 (toll-free)
<http://www.mc.uky.edu/kiprc/projects/KOSHS/index.html>

References:

Case 1 Report:

<http://www.mc.uky.edu/kiprc/projects/KOSHS/face/data/Reports/KY059.pdf>

Case 2 Report:

http://www.mc.uky.edu/kiprc/projects/KOSHS/face/data/Reports/14KY008-FINAL-2_updated.pdf

OSHA Regulations:

- <https://www.osha.gov/SLTC/fallprotection/>
- https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10758
- https://www.osha.gov/pls/oshaweb/owasrch.search_form?p_doc_ty pe=INTERPRETATIONS&p_toc_level=3&p_keyvalue=1926.501&p_status=CURRENT

The KY FACE program is an occupational fatality program funded by the National Institute of Occupational Safety and Health (NIOSH) (Cooperative Agreement No.: 5 U60 OH008483-10). This report does not necessarily reflect the official views of NIOSH.