

Kentucky Injury Prevention and Research Center
Bona fide agent for Kentucky Department for Public Health
333 Waller Avenue, Suite 242 • Lexington, KY 40504 • 859-257-5839

REPORT#: 17KY007

REPORT DATE: 5/21/2018

INCIDENT HIGHLIGHTS



DATE:

March 15, 2017



TIME:

1:35 p.m.



VICTIM:

52-year old supervisor



INDUSTRY/NAICS CODE:

Drywall & Insulation
Contractors 238310



EMPLOYER:

Drywall contractor



SAFETY & TRAINING:

Written safety programs
and weekly safety training



SCENE:

Newly constructed 4,200
square foot home living
room



LOCATION:

Kentucky



EVENT TYPE:

Fall from mobile scaffold



Dry Wall Supervisor Falls from Unsecured Plank

SUMMARY

On Wednesday, March 15, 2017, a 52-year-old male drywall supervisor (the victim) was setting up scaffolding; his co-worker stated he stopped mid-set up to hang a piece of drywall. The metal walk plank on which he was standing flipped on its side, throwing him 10 feet, 9 inches below onto the subflooring of a home they were dry walling. He was pronounced dead at the scene from blunt impact injuries to his head and neck.... [READ THE FULL REPORT](#) (p.5)

CONTRIBUTING FACTORS

Key contributing factors identified in this investigation include:

- Fall exposure
- Misuse of the walking platform
- Lack of fall protection

RECOMMENDATIONS

Face investigator concluded that, to help prevent similar occurrences:

- Jobs should be designed to minimize fall exposure
- Employees should ensure proper scaffolding equipment is used for each phase of work.
- Employers should ensure scaffolds are fully planked or decked.
- Employees working on scaffolds should always use fall protection in the form of guardrail or personal fall arrest system for each employee 10 or more feet above the lower level of scaffolding.
- [LEARN MORE](#) (p.6)



KENTUCKY

State **FACE** Program

Fatality Assessment & Control Evaluation

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Fatality Assessment and Control Evaluation (FACE) Program

This case report was developed to draw the attention of employers and employees to a serious safety hazard and is based on preliminary data only. This publication does not represent final determinations regarding the nature of the incident, cause of the injury, or fault of employer, employee, or any party involved.

This Case report was developed by the Kentucky Fatality Assessment and Control Evaluation (FACE) Program. Kentucky FACE is a NIOSH-funded occupational fatality surveillance program with the goal of preventing fatal work injuries by studying the worker, the work environment, and the role of management, engineering, and behavioral changes in preventing future injuries. The FACE program is located in the Kentucky Injury Prevention and Research Center (KIPRC). KIPRC is a bona fide agent for the Kentucky Department for Public Health.

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INTRODUCTION

At 1:35 pm on Wednesday, March 15, 2017, a 52-year-old male drywall company supervisor (the victim) was setting up mobile scaffolding in the living room of a newly constructed house, when according to his co-worker, he stopped mid-set up and stepped onto an unsecured plank in order to hang a piece of drywall. The metal walk plank he was standing on flipped on its side, throwing the victim 10 feet, 9 inches below onto the subflooring. The victim was pronounced dead at the scene from blunt impact injuries to his head and neck.

EMPLOYER

The employer was a family-owned drywall company in business since 1958 with 17 employees at the time of the incident.

WRITTEN SAFETY PROGRAMS and TRAINING

The company provided written safety programs as well as proof of safety training sheets. Safety training was provided weekly; a different safety topic was discussed each week in the form of presentations, safety videos, and handouts. The victim was in charge of safety for the company and was the on-site supervisor.

WORKER INFORMATION

The victim was a 52-year old married father. The death certificate indicated that the decedent had received a high school education. He had been employed with the company for 34 years and was a supervisor and safety trainer. The victim would volunteer his time hanging drywall in other countries for several months each year, and became well-versed in safety laws and requirements due to strict regulations for working overseas. He had attended numerous training classes during his employment.

INCIDENT SCENE

The incident took place in the living room of a newly constructed 4,200 square foot home. According to the company vice president, the victim and a coworker had been hanging drywall at the site since Friday, March 10, 2018 (three working days), and were approximately 50% complete with the job when the incident occurred. The company was not facing a deadline, and the job was proceeding as scheduled.

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Incident scene



Figure 1. Scaffold and plank from which the victim fell



Figure 2. Position of the plank after it had flipped onto its side. Photo taken from loft area

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WEATHER

The outdoor temperature was approximately 30°F and the indoor temperature was approximately 50°F at the time of the incident. The humidity was 38%, and the wind was calm.¹ Weather was not considered a factor.

INVESTIGATION

On Wednesday, March 15, 2017, the Kentucky Fatality Assessment and Control Evaluation Program was made aware by the Kentucky Labor Cabinet of a fatality involving an employee who fell from a mobile scaffold while installing drywall at a residential worksite. A site visit and investigation were subsequently conducted.

On Wednesday afternoon, a supervisor (the victim) and another drywall installer arrived at a newly constructed 4,200 square foot home to set up scaffolding in order to hang dry wall. The supervisor was in the process of erecting a mobile scaffold, but had yet to install any guardrails. The scaffold was a 'Bil-Jax' mobile scaffold with locking caster wheels. The victim was on the second buck of the two buck high scaffold. Resting on the seventh of the scaffold's eight bearers - a horizontal transverse scaffold member upon which the scaffold platform rests and which joins scaffold uprights, posts, poles, and similar members - was an aluminum walk plank that allowed access to an open loft area where drywall was stored for easy access. The walk plank was a model #LL0420 manufactured by Green Bull with a maximum weight of 750 lbs. The walk plank, which lacked attaching hooks and was unsecured on both ends, sat 11 feet above the lower level. The scaffold's wheels were locked in place and braced against the wall to prevent it from moving unexpectedly.



Figure 3. Position of the plank after the accident. Note the lack of attaching hooks (circled)

Before beginning the installation of the guardrails on the scaffolding, the victim stepped onto the unsecured metal walk plank in order to hang a sheet of drywall. When the co-worker was asked why there were no guardrails, he stated there was not enough room because of the angle of the ceiling and the height of the scaffold. As the victim was approximately halfway through installation of the drywall sheet, the metal walk plank flipped on its side throwing the victim head first 10 feet, 9 inches below to the subflooring made up of wood over top of concrete. The victim's coworker immediately contacted emergency medical services and the company. EMS arrived within 12 minutes of the call, but was unable to resuscitate him. The victim was pronounced dead at the scene by the county coroner.

CAUSE OF DEATH

The cause of death was blunt impact injuries to the head and neck.

CONTRIBUTING FACTORS

Occupational injuries and fatalities are often the result of one or more contributing factors or key events in a larger sequence of events that ultimately result in the injury or fatality. The investigator identified the following unrecognized hazards as key contributing factors in this incident:

- *Fall Exposure*
- *Misuse of the walking platform*
- *Lack of fall protection*

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Jobs should be designed to minimize fall exposure.

Discussion: Prior to beginning work, a job hazard analysis (JHA) should be conducted to determine what hazards are present, and design the best practice to minimize fall. These safety reviews should be conducted prior to work and after any condition change. The JHA should include how to minimize or eliminate the hazard, as well as what equipment is needed, including personal protective equipment. One possible solution that the employees should have considered in order to eliminate the fall hazard was to move the drywall sheets located in the loft area to an area easily accessed without the hazard of falling from height. If placing the drywall in a more accessible area was not feasible, the employees should have considered using a portable ladder to access the loft area. If a plank was considered the only solution, it should have been secured at both ends, and the outrigger frames or equivalent devices used to stabilize the plank.

Recommendation #2: Employees should ensure they are using the proper equipment for each phase of work.

Discussion: A plank intended as a stair ramp was used in place of proper scaffolding as a standing surface for drywall installation and access to stored drywall in the loft area. According to OSHA regulation 1926.451(b)(10)², *“Scaffold components manufactured by different manufacturers shall not be intermixed unless the components fit together without force and the scaffold's structural integrity is maintained by the user. Scaffold components manufactured by different manufacturers shall not be modified in order to intermix them unless a competent person determines the resulting scaffold is structurally sound.”*

Recommendation #3: Employers should ensure scaffolds are fully planked or decked.

Discussion: The supervisor was using a metal walk plank for the purpose of accessing the elevated loft area via the scaffold. The intended purpose of this particular metal plank was to be used as a stair ramp for moving materials into the house, and was not meant to be used as part of a scaffold. Even if the employee had been using an approved scaffold extension, according to OSHA regulation 29 CFR 1926.452(w)(6)(v)(7)³, *“no employee is on any part of scaffold which extends outward beyond wheels, casters or other supports.”* In order to use platforms that extend outward beyond support, the scaffold must use outrigger frames or equivalent devices to ensure stability.

Recommendation #4: Employees working on scaffolds should always use fall protection in the form of guardrail or personal fall arrest system for each employee 10 or more feet above the lower level.

Discussion: The supervisor was in the process of setting up the mobile scaffolding. According to 29 CFR 1926.451 (g)(1)⁴ *“Each employee on a scaffold more than 10 feet (3.1m) above a lower level shall be protected from falling to that lower level.”* The victim should have ensured that guardrails were installed on the second buck of the scaffold as it exceeded 10 feet, or properly worn his personal fall arrest system (PFAS) and adequately secured himself prior to hanging the drywall. This step may have prevented the outcome of this fatal event. Management stated that fall protection was provided and were surprised that it was not utilized in this situation.

DISCLAIMER

This case report was developed to draw the attention of employers and employees to a serious safety hazard and is based on preliminary data only. This publication does not represent final determinations regarding the nature of the incident, cause of the injury, or fault of employer, employee, or any party involved.

PROGRAM FUNDING

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REFERENCES

- ¹ "Historical Weather". Archive. Weather Underground. <https://www.wunderground.com/history>
- ² Scaffold platform construction. 29 CFR 1926.451(b)(10)
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10752
- ³ *Specific Platforms on Scaffolding*. 29 CFR 1926.452(w)(6)(v)(7)
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10753
- ⁴ Fall Protection on Scaffolding. 29 CFR 1926.451(g)(1)
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10752

PHOTO CREDITS

All photos are courtesy of Kentucky OSHA.

INVESTIGATOR INFORMATION

This investigation was conducted by DeAnna McIntosh, Safety Specialist, Fatality Assessment and Control Evaluation, Kentucky Injury Prevention and Research Center, University of Kentucky, College of Public Health.

ACKNOWLEDGEMENT

The Kentucky FACE program would like to thank the Kentucky State Highway Patrol, the county coroner, the county sheriff's department, and the EMS for their assistance with this report.

SURVEY

[Please click here](#) to take a brief, anonymous survey concerning this report. Your feedback and opinions are appreciated.