OR-FACE
OREGON FATALITY ASSESSMENT AND CONTROL EVALUATION
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Center for Research on Occupational & Environmental Toxicology
OHSU OREGON HEALTH & SCIENCE UNIVERSITY
Fatality Investigation Report
OR 2006-03-1

Novice drywall installer dies in 7-foot fall from scaffold

SUMMARY

On February 1, 2006, a 22-year-old drywall installer fell from a scaffold while hanging sheetrock at a construction project at a private residence, and died 2 days later. The installer had been on the job only 2 weeks and was inexperienced. He was working with a lead worker as a two-man crew. The two workers arrived at the site in the morning, where a barn was being converted into a shop, and set up a scaffold to a height of about 7 feet. The scaffold was placed about 1 foot from the wall, the lead worker locked the wheels on his end, and the two workers climbed onto the scaffold to hang 12-foot pieces of sheetrock on the shop wall. The installer was holding the sheetrock against the wall when the scaffold suddenly moved backward, causing him to lose his balance and fall. He hit his head on the concrete floor. The victim was transported to a hospital, where he died 2 days later.

The scaffold used by the drywall installer and his lead man in this incident had only a single plank on the deck.

CAUSE OF DEATH: Blunt force head injuries

RECOMMENDATIONS

- **Workers on mobile scaffolding should double-check the structural stability of the scaffold and ensure that wheels are locked before mounting the work platform.**
- **A competent person must supervise the erection and use of scaffolds.**
- **Employers must ensure that construction workers are trained to identify, understand, and control fall hazards.**
- **Employers should consider using guardrails on scaffolds wherever practicable.**

INTRODUCTION

On February 1, 2006, a 22-year-old Hispanic drywall installer was fatally injured in a fall from a scaffold at a construction project at a private residence. OR-FACE was informed 2 days later by OR-OSHA. An OR-FACE investigator conducted interviews. This report is based on information from interviews, and Oregon OSHA and the medical examiner reports.

The employer, a non-union Oregon drywall construction company, had been in business for over 16 years. The firm employed 20 Hispanic workers. Daily work assignments generally involved drywall spraying and patching, and scaffold and material delivery. Most drywall hanging jobs were subcontracted to other firms. The scaffolding used by workers in this incident was owned by the employer.

Workers received on-the-job and monthly tailgate training sessions in Spanish. Individual proficiency was determined by observations of a lead man on the job. The firm had a functioning safety committee, and a general safety policy, but no designated "competent person" to evaluate fall hazards at construction sites and supervise the erection and use of scaffolding.

The drywall installer in this incident emigrated to the USA from Mexico about 10 years earlier and spoke primarily Spanish. He was hired 2 days following the last tailgate safety meeting, so received no general safety training, nor training on erecting scaffolding. He had been on the job 2 weeks when the incident occurred. On the day of the incident, the installer was receiving job training in delivering materials from a lead worker who had over 6 years of experience in the drywall trade.

INVESTIGATION

On the morning of the incident, the two-man crew, consisting of the novice drywall installer and a lead worker, were scheduled to deliver two sets of mobile mason's scaffolding and materials to a residential site where the owner was converting a barn into a shop, then drive to another town to do a small installation of furnace board. A subcontracted crew was already at the residential site that morning to install sheetrock.

The two crews worked together to erect the scaffolds. Each mobile scaffold consisted of two 6-foot tubular frames with wheels, horizontal struts and cross braces, and a single prefabricated platform that hooked over the frame. The platform was about 7 feet 4 inches above the ground.

The crew that delivered the scaffolds then stayed to help install two sheets of sheetrock at floor level. Each piece of sheetrock was 4x12 feet and weighed 105 pounds. The crew positioned the scaffold 1 foot from the wall for the installation. The lead worker locked the wheels on his end of the scaffold, and the two workers climbed onto the scaffold and began to hang the sheetrock on the wall of the shop.

The installer may have not locked the wheels on his end before mounting the scaffold. (Stock photo is not necessarily the same as wheels in this incident.)

The installer was holding the sheetrock against the wall when the scaffold moved backward, causing him to lose his balance and fall forward between the scaffold and the wall. He hit his head on the concrete floor. The general contractor at the site was notified, and called 911 and the employer. The victim was transported to a hospital, where he died 2 days later.

The scaffold was moved from its original location, probably in order to reach the victim, and it was unclear later if the event was primarily caused by movement of the wheels, or by the victim losing his balance.

RECOMMENDATIONS/DISCUSSION

Recommendation #1. Workers on mobile scaffolding should double-check the structural stability of the scaffold and ensure that wheels are locked before mounting to the work platform.

This incident emphasizes the need for extra caution before working at a height. After setting up a mobile scaffold, workers should double-check that the structure is on a hard level surface, properly braced and secured so it does not sway, set closely to the wall where work is to be performed, and wheels locked. Employers should encourage workers to actively participate and communicate to supervise their own safety and the safety of coworkers.

Recommendation #2. A competent person must supervise the erection and use of scaffolds.

A designated "competent person" must supervise work at a construction site where fall hazards are present. Prior to each work shift, the competent person or a person trained by the competent person must inspect all fall-protection equipment, including scaffolds, and take prompt corrective action when defects are discovered. A competent person must directly supervise the erection of scaffolding: "Scaffolds shall be erected, moved, dismantled, or altered only under the supervision and direction of a competent person" (OR-OSHA Subdivision 3L(f)(7)).

A competent construction supervisor should give specific attention to new workers, and follow through job procedures step by step to be sure the new worker understands how to work safely. Fall hazards should be regularly discussed with workers as a continual reminder that gravity, though easily taken for granted, can be deadly.

Recommendation #3. Employers must ensure that construction workers are trained to identify, understand, and control fall hazards.

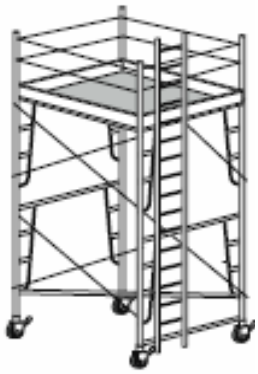
Employers are required to provide safety training and necessary protective equipment to all workers exposed to fall hazards (OR-OSHA Subdivision 3M). Injuries from falls are especially common in construction work. In Oregon, 2003-05, nearly half of the 24 fatal workplace incidents for construction workers involved a fall. Ladders and roof work are the most common sources of injury. Errors in the use of scaffolding are also widespread and deserve special attention.

Safety training may occur on the job, but a safety program is most effective when employers and management demonstrate a commitment to safety through additional training activities, group discussions, investigation, and measures for accountability. Communication and feedback about worksite hazards and company safety policies may be facilitated by a safety committee. A safety committee is required in Oregon for all firms with more than 10 employees.

A written safety and health program is helpful to establish definite work practices and ensure that key safety measures are not neglected. Safety lessons may be reinforced by making written materials available to workers, including manufacturers' operating manuals, safety booklets for specific activities, and displayed messages in posters, flyers, or stickers. Non-English speaking workers are commonly employed in smaller construction firms, and appropriate foreign-language training and materials should be used to communicate and reinforce safety lessons for those workers.

Recommendation #4. Employers should consider using guardrails on scaffolds wherever practicable.

Guardrails and toe guards on scaffolds are only required at heights 10 feet or more above the ground. This incident demonstrates that falls from less than 10 feet can still cause serious, even fatal injuries. Employers may want to consider the use of guardrails at lower heights to reduce risk for workers.



Example of a mobile scaffold with guardrail and mounting ladder (Source: OR-OSHA, 2005, *Scaffolds: Temporary elevated work platforms*).

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CROET at OHSU performs OR-FACE investigations through a cooperative agreement with the National Institute for Occupational Safety and Health (NIOSH), Division of Safety Research. The goal of these evaluations is to prevent fatal work injuries in the future by studying the work environment, the worker, the task, the tools, the fatal energy exchange, and the role of management in controlling how these factors interact.

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