The National Institute for Occupational Safety and Health (NIOSH)

Promoting productive workplaces through safety and health research NIOSH

Dry Wall Finisher Dies in Fall from Ladder on Scaffold

FACE 8827

INTRODUCTION

The National Institute for Occupational Safety and Health (NIOSH), Division of Safety Research (DSR), performs Fatal Accident Circumstances and Epidemiology (FACE) investigations when a participating state reports an occupational fatality and requests technical assistance. The goal of these evaluations is to prevent fatal work injuries in the future by studying: the working environment, the worker, the task the worker was performing, the tools the worker was using, the energy exchange resulting in fatal injury, and the role of management in controlling how these factors interact.

On June 23, 1988, a 55-year-old male drywall finisher was fatally injured when he fell 22 feet from a portable wooden step ladder that was on top of a 17-foot-high mobile scaffold.

CONTACTS/ACTIVITIES

On June 27, 1988, a state Occupational Safety and Health official notified DSR of this fatality and requested technical assistance. On July 12, 1988, NIOSH met with a company representative, discussed the incident with the OSHA compliance officer, photographed the site, interviewed a co-worker who witnessed the incident, and obtained a report from the local fire department's emergency medical service (EMS) rescue squad that responded.

OVERVIEW OF EMPLOYER'S SAFETY PROGRAM

The victim was a dry wall finisher working for a general contracting construction company. The company has been in business for approximately 4 years and currently employs 90 employees, including 4 dry wall finishers. The company uses written safety rules and procedures and provides on-the-job training to employees. The construction job site superintendent is responsible for administering the safety program which includes conducting weekly job site safety meetings with all the employees. The victim had almost 4 years' experience as a drywall finisher. He had never received a reprimand for violating safety rules or procedures.

SYNOPSIS OF EVENTS

The construction company had been contracted to build a multilevel brick high school. Construction started in October 1986, with completion scheduled for September 1988. At the time of the incident, most of the exterior work had been completed and the interior finishing work was in progress.

On June 23, 1988, two dry wall finishers were putting filler compound over the heads of the screws that secured sheetrock panels to the interior walls. They were working in the same room from separate scaffolds. The scaffolds were mobile metal scaffolds, 17 feet high, 7 feet long, and 5 feet wide, which were equipped with 8-inch rubber tires with locking casters. The victim's work platform was made up of two 2-inch by 10-inch, 7-foot-long wooden boards and one 2-foot-wide by 7-foot-long standard aluminum plank mounted across the top railing of the scaffold. Additionally, the victim placed an 8-foot wooden step ladder on top of the work platform to reach the upper sections of the wall, which was 25 feet high.

Prior to the incident a co-worker told the victim that the casters on the scaffold were not locked. The victim replied, "I want them that way." The victim positioned the stepladder on the scaffold platform and leaned the top of the ladder against the wall. When the victim climbed the ladder, the force exerted at the ladder's foot caused the scaffold to roll. The victim fell head first onto a concrete floor 22 feet below.

The construction superintendent, who was in an adjacent room, heard a disturbance and ran to the incident site. He immediately called the local EMS squad using a two-way walky-talky. An ambulance arrived 4 minutes later, and EMS personnel provided advanced life support. The victim was transported to a local hospital where he was pronounced dead on arrival.

CAUSE OF DEATH

The coroner reported the cause of death as traumatic injuries to the head and chest.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Employers should ensure that all employees required to work from elevated work platforms understand the potential danger of a fall, and the proper methods of erecting, placing, securing, and using scaffolds and ladders.

Discussion: Occupational Safety and Health Administration (OSHA) Safety and Health Standard 29 CFR 1926.451(e)(8) states that, "Scaffolds in use by any persons shall rest upon a suitable footing and shall stand plumb, also the casters or wheels be locked to prevent any movement." The employer should ensure that all employees understand the danger of working on scaffolding; this includes the necessity of locking casters or wheels. Employers should also instruct all employees to report all unsafe working conditions (e.g., the unlocked casters observed by the co-worker) to the supervisor. If the victim had locked the casters or the co-worker had reported this unsafe working condition, this fatality may have been prevented.

Recommendation #2: Employers should ensure that appropriate guardrails and toeboards are installed on mobile scaffolding used for work at levels exceeding 10 feet above the ground or floor.

Discussion: OSHA Safety and Health Standard 29 CFR 1926.451(a)(4) requires that guardrails and toeboards be installed on all open sides and ends of platforms more than 10 feet above the ground or floor. The work platform of the mobile scaffolding was 17 feet above the floor, and all four sides surrounding the platform were open. The employer should have equipped the mobile scaffolding with guardrails and toeboards before the platform was used.

Recommendation #3: Employers should ensure that mobile scaffolding platforms are tightly planked.

Discussion: OSHA Safety and Health Standard 29 CFR 1926.451(e)(4) requires that mobile scaffolding platforms be tightly planked for the full width of the scaffold. In addition to the hazard created by leaning an 8-foot wooden step ladder against the wall, the platform was only partially planked, creating an opening approximately 17 inches wide by 7 feet long. The employer should regularly inspect to ensure that all scaffolding meets the requirements established by the OSHA Safety and Health Standards (e.g., locked casters, installed guardrails, and tightly planked platforms, etc.).

Recommendation #4: In the event an employee is injured on the job, the employer should review, and revise if necessary, the safety rules and procedures, inspect the work site for unsafe working conditions, and initiate actions to ensure safe working conditions before work activities continue.

Discussion: This fall is one of four falls experienced by employees of the contractor or sub-contractor at this specific job site (initiated October, 1986). Although the previous three falls did not result in death, the workers involved received severe injuries including fractures and lacerations. One of these workers is permanently paralyzed as a result of a fall. It is evident that safety conditions are poor at this specific work site; the employer should initiate immediate action to correct these unsafe working conditions.

Return to In-house FACE reports

Last Reviewed: November 18, 2015