



The National Institute for Occupational Safety and Health (NIOSH)

Promoting productive workplaces
through safety and health research



Painter Dies After 35-Foot Fall From Scaffold– Tennessee

FACE 9506

SUMMARY

A 60-year-old male painter foreman (the victim) died after falling 35 feet from the top stage of a tubular scaffold. The victim and a co-worker were painting the window frames and roof eaves of a church. The victim was working from a mobile tubular scaffold scraping and painting the roof eaves, while the co-worker was working on the windows from an extension step ladder. The top stage of the scaffold, from which the victim was working, was not equipped with side rails. After their morning break, the men repositioned the scaffold. The victim began to climb the scaffold to the top, and told the co-worker to put scrapers and a propane torch in the tool basket and tie the basket to the pull rope attached to the top rail of the scaffold. The victim was standing on two, 12-inch-wide by 6-foot-long unsecured boards that covered only 2/3 of the floor of the scaffold stage. As the co-worker was placing the tools in the basket, he heard a noise and looked up to see the victim falling from the top of the scaffold. The victim fell between the boards and the outside rails of the scaffold for approximately 15 feet. He then struck a scaffold cross brace that flipped him to the outside of the scaffold, and fell another 20 feet onto a 36-inch-high air conditioning unit. NIOSH investigators concluded that, to prevent similar occurrences, employers should:

- **provide adequate guarding on scaffolding and ensure its proper set-up**
- **ensure that appropriate fall protection equipment is available and correctly used when working where there is a danger of falling**
- **develop, implement, and enforce a comprehensive written safety program**
- **routinely conduct scheduled and unscheduled workplace safety inspections**
- **encourage workers to actively participate in workplace safety.**

INTRODUCTION

On November 21, 1994, a 60-year-old male painter foreman (the victim) died of injuries received in a 35-foot fall from a scaffold. On January 30, 1995, officials of the Tennessee Occupational Safety and Health Administration (TOSHA) notified the Division of Safety Research (DSR) of this fatality, and requested technical assistance. On March 15, 1995, a DSR safety specialist conducted an investigation of this incident. The incident was reviewed with the employer and the TOSHA compliance officer assigned to the case. The medical examiner's report, the death certificate, and photographs of the site immediately following the incident were obtained during the investigation.

The employer was a commercial painting contractor that had been in business under the present ownership for 23 years, and employed anywhere from 20 to 90 painters, depending upon the workload. The employer had a written safety policy and basic written safe work procedures. Weekly safety meetings were conducted by the supervisor at the jobsite and training was conducted on the job. Fall protection equipment such as safety belts and lanyards were supplied by the employer. The victim had worked for the employer for 20 years. This was the first fatality experienced by the employer.

INVESTIGATION

The employer had been contracted to scrape, prepare, and repaint the window frames and roof eaves of a church. The work had progressed on a part-time basis over a 2-month period. Up to that point, the men had finished most of the window frames using extension ladders and were ready to begin work on the roof eaves using a mobile tubular scaffold. The scaffold stages were 5-feet-high by 3-feet-wide by 6-feet-long. Seven stages were necessary to access the eaves. The men did not put the side rails on the seventh stage. Two 12-inch-wide boards were placed on the floor of the 7th stage, leaving a 12-inch gap between the edge of the board and the outside rail of the scaffold.

On the day of the incident, the victim was working from the scaffold scraping the eaves while the co-worker was working from an extension ladder finishing the windows. After their morning break, the victim began to climb the scaffold and instructed the co-worker to place additional scrapers and a propane torch in the tool basket that was tied to a pull rope attached to the top rail of the scaffold. As the co-worker was gathering the tools to place in the basket, he heard a noise and looked up to see the victim falling from the top of the scaffold. The victim fell between the edge of the floor board and the outside of the scaffold, falling approximately 15 feet before striking a cross brace on the scaffold. The victim was flipped to the outside of the scaffold and fell an additional 20 feet, landing on a 36-inch-high air conditioning unit. The victim was unconscious but breathing. The emergency rescue service was summoned by phone from the church parsonage and transported the victim to the local hospital, where he was pronounced dead by the attending physician.

CAUSE OF DEATH

The medical examiner listed the cause of death as traumatic shock due to closed head trauma, ruptured spleen, and blunt force trauma, due to a fall.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Employers should provide adequate guarding on scaffolding and ensure its proper set-up.

Discussion: The victim was scraping the roof eaves while standing on a scaffold stage without guardrails or toeboards. Guarding on scaffold platforms, is required by 29 CFR 1926.451 (a) (4), which states "Guardrails and toeboards shall be installed on all open sides and ends of platforms more than 10 feet above the ground or floor." Additionally, there were only two 12-inch-wide boards on the floor of the scaffold stage, leaving the 12-inch gap which the victim fell through. Proper set-up procedures include the installation of guardrails, midrails, and toeboards around the platform perimeter, as well as ensuring that the working surface is completely covered, eliminating floor openings.

Recommendation #2: Employers should ensure that appropriate fall protection equipment is available and correctly used when working where there is a danger of falling.

Discussion: 29 CFR 1926.501 (b) (1) states that "each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet (1.8m) or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems." In this incident, the scaffold was not equipped with guardrails, and although safety belts and lanyards were available in the truck, they were not used.

Recommendation #3: Employers should develop, implement, and enforce a comprehensive written safety program.

Discussion: The employer had basic written safety rules; however, the development, implementation, and enforcement of a comprehensive safety program should identify, and reduce or eliminate worker exposures to hazardous situations. The safety program should include, but not be limited to, ensuring that scaffold platforms are equipped with appropriate guardrails and toeboards; employing worksite hazard assessments to enable the recognition and avoidance of fall hazards; and providing, and enforcing, the use of appropriate safety equipment such as safety nets, or safety belts and lanyards.

Recommendation #4: Employers should routinely conduct scheduled and unscheduled workplace safety inspections.

Discussion: Employers should be aware of the hazardous conditions at jobsites and should take an active role to eliminate them. Scheduled and unscheduled safety inspections should be conducted by a competent person to ensure that jobsites are free of hazardous conditions. Even though these inspections do not guarantee the prevention of occupational injury, they may identify hazardous conditions and activities that should be rectified. Further, they demonstrate the employer's commitment to the enforcement of the safety program and to the prevention of occupational injury.

Recommendation #5: Employers should encourage workers to actively participate in workplace safety.

Discussion: Employers should encourage all workers to actively participate in workplace safety and should ensure that all workers understand the role they play in the prevention of occupational injury. In this instance, the victim was working on a scaffold 35 feet above the ground without any guarding or safety equipment. Workers and co-workers should look out for their personal safety and the safety of co-workers. When workers observe hazardous conditions or activities, they should, depending on the circumstances, notify management and/or remind co-workers of the proper way to perform their tasks and protect themselves. Employers must instruct workers of their responsibility to participate in making the workplace safer. Increased worker participation will aid in the prevention of occupational injury.

REFERENCES

29 CFR 1926.451 (a) (4) Code of Federal Regulations, Washington, D.C.: U. S. Government Printing Office, Office of the Federal Register.

29 CFR 1926.501 (b) (1) Code of Federal Regulations, Washington, D.C.: U.S. Government Printing Office, Office of the Federal Register.

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