

July 24, 1998

MARYLAND DIVISION OF LABOR AND INDUSTRY

CASE: 98MD01601

TO: Project Officer, State FACE Project, Division of Safety Research

FROM: Maryland FACE Program, Division of Labor and Industry

SUBJECT: Painter falls 24-feet from a ladder placed on mobile tubular steel scaffold.

SUMMARY

On Thursday, April 16, 1998, a 44-year-old painter received fatal injuries when he fell 24-feet to the sidewalk. The victim and the owner/proprietor of a very small contracting/home improvement business, had erected a tubular steel scaffold in preparation for painting the wood trim on a city row house. The scaffold was one frame long and wide (approximately 7-feet by 5-feet) and two frames high (approximately 13-feet high). A 12-foot wooden straight ladder was positioned on top of the scaffold, so that the victim could paint the second floor window frames and cornice at the front of the house.

No one witnessed the fall. However, from the evidence at hand, it is believed that as the victim ascended the ladder, it acted as a lever and caused the scaffold to topple away from the front of the house. The victim fell between the house and the scaffold, striking his head on the concrete sidewalk.

The home owner, who was in his kitchen, heard the scaffold fall and ran to see what had happen. He found the victim lying on the sidewalk, bleeding from his nose and one ear. Although he had a pulse, the victim did not respond to communication. The home owner shouted to a friend to call 911. Police and an ambulance responded to the scene within a few minutes. The victim was not responsive to the paramedics' efforts to revive him. He was transported by ambulance to the local shock trauma unit for further treatment. Eight days later the victim died of the injuries received in the fall.

The MD/FACE investigator concluded, that to prevent similar occurrences, employers should:

- *Ensure that scaffolds are erected, moved, dismantled or altered under the direction of a competent person . . . someone knowledgeable of scaffold safety requirements.*
- *Ensure that scaffolds are fully planked at the working level.*
- *Ensure that ladders are not used on scaffolds to increase the working level height of the*

scaffold, unless specific criteria in the standard is met.

INTRODUCTION

On Thursday, April 16, 1998, a 44-year-old painter received injuries that resulted in his death, when he fell approximately 24-feet to the sidewalk, as the scaffold he was working from collapsed. He was painting the window frames and cornice of a two-story, row house.

A MOSH Flash, eight days later - when the victim died of his injuries, notified the MD/ FACE Field Investigator of the fatal injury. Information regarding the incident was gathered from a site visit, police report, the owner of the business, the home owner of the property being painted and the MOSH Inspectors' report.

The employer had been in the contracting business for thirty years. Based on the victim's twenty-years experience in painting, the employer had hired him on an "as needed" basis for the past six months.

No formal safety and health program had been established by the employer and no scaffold training had been conducted.

INVESTIGATION

On Wednesday, April 15, 1998, the victim began to prepare for painting, the window frames and cornice, at the front of a private house, in a large metropolitan area. The victim mentioned to his employer that he did not feel comfortable working from a 20-foot extension ladder.

On Thursday, April 16, 1998, the employer picked up the victim at approximately 8:00 a.m. They went to check another job site, pick up paint and other materials before coming to this work site. The victim and the employer began to erect the scaffold. The first level (5-ft wide x 7-ft long) was erected approximately 30-inches out from the house's front wall. A log planter box, which measured approximately 80-inches long x 19-inches wide x 19-inches deep, set out from the wall 10-inches, prevented the scaffold from being closer to the house. The second level of the scaffold was erected in similar fashion with the victim handing up materials to the employer. The second level was planked with three 2-inch x 10-inch planks, each approximately 8-feet long and overlapped the end frames by 6 - 8-inches. Two of the scaffold planks placed on the second level (13-feet above the ground) were defective. One had cracks of 27-inches and 31-inches; the other had cracks of 26-inches and 28-inches in length. All three planks were placed side by side along the outer edge of the scaffold, furthest from the front of the house. The inner plank was approximately 65-inches from the front wall of the house, leaving a gap of 32-inches in the work platform. A 2 x 4-inch block of wood was nailed to one of these planks to prevent the 20-foot straight ladder, which was equipped with rubber feet, from kicking-out.

At approximately 11:30 a.m., the employer temporarily left the job site. The victim climbed up the side of the scaffold and ascended the ladder to paint the cornice. No one witnessed the fall. It is assumed, from the fact that the scaffold was not tied to the wall, the weight of the victim and

the angle of the ladder caused a levering effect. In turn the force of the ladder on the block caused the scaffold to pivot on its wheels and topple into the street.

The victim fell approximately 24-feet, between the scaffold and house. He struck his head on the sidewalk and was unconscious, but breathing, when the home owner came out to investigate the noise made by the scaffold falling. The home owner found the victim unresponsive and bleeding from head injuries. He shouted to a friend inside his house to call 911. Emergency medical services arrived within five minutes but were unable to revive the victim. They transported the victim to the local shock trauma unit for further treatment. The victim died eight days later.

CAUSE OF DEATH

The death certificate, signed by the attending shock trauma physician and approved by the medical examiner, listed closed-head injuries from a fall as the cause of death.

RECOMMENDATION/DISCUSSION

Recommendation # 1: Ensure that scaffolds are erected, moved, dismantled or altered under the direction of a competent person . . . someone knowledgeable of scaffold safety requirements.

Neither the employer nor the victim was trained as a competent person, who would have recognized the precarious condition of the scaffold and ensure that appropriate measures were taken to correct them. The employer did not have a safety and health program, with work rules, that would have prevented the hazardous conditions from existing.

Other factors contributing to the severity of the accident, besides those mentioned below, were: failure to tie the scaffold to the house, the lack of a guard rail at the second level, not using a personal fall arrest system and placement of the scaffold where lateral forces placed on it at the top caused it to topple.

Employers should also provide a safe means of access to the scaffold working level. Although it did not affect the events in this case, the victim had to climb the scaffold frame to get to the working level.

Recommendation #2: Ensure that scaffolds are fully planked at the working level.

The second level of the mobile scaffold that was approximately 13-feet high, 7-feet long and 5-feet wide, only had three planks butted together toward the outer side of the scaffold leaving a space greater than 30-inches in the work platform.

According to the employer, these were the only planks he had for the scaffold. Two of these planks were weakened and damaged by cracks. 29CFR1926.451(b)(1) requires that each platform on all working levels of scaffolds to be fully planked or decked between the front uprights and guard rail supports.

Recommendation #3: Ensure that ladders are not used on scaffolds to increase the working level height of the scaffold, unless specific criteria in the standard is met.

29CFR1926.451(f)(15) requires that ladders not be used on scaffolds to increase working height of employees, except on large area scaffolds where employers have ensured that the scaffold is secured against sideways thrust exerted by the ladder; the platform is secured to the scaffold to prevent movement; the ladder is stabilized against unequal platform deflection and the ladder legs are secured to prevent them from slipping or being pushed off the platform.