MO FACE Investigation #95MO074

Subject: Roofer Dies Following 22-Foot Fall From Residence

Summary:

A 40-year-old roofer (victim) died after falling approximately 22 feet from a second story roof. The victim had contracted with the home owners to re-roof their two-story residence on evenings and weekends. The victim's usual occupation was as a union-employed commercial roofer. Though the incident was unwitnessed, it appears the victim had been applying shingles along the back portion of the residence's second story roof. The victim had a safety rope secured around a chimney with loops tied approximately every three feet. He may not have been utilizing the rope at the time of the incident, and his safety belt was found in his vehicle. The owners reported that he did wear a safety belt while working.

The MO FACE Investigator concluded that in order to prevent similar occurrences:

- Employers and self-employed persons should ensure that fall protection equipment is used where the potential for a fall from an elevation exists.

Introduction:

On July 24, 1995, a 40-year-old roofer (victim) was fatally injured when he fell from a home's second story roof. On July 26, 1995, the county coroner notified the MO FACE Program of the fatality. The MO FACE investigator traveled to the incident site and met with the county coroner and the home owners on July 28, 1995. The MO FACE investigator photographed the incident site and collected copies of the coroner's report, police report, and ambulance run sheet.

The victim's regular occupation was a union employed commercial roofer. He was working for himself at the time of the incident. He had been working evenings and weekends on the residence since May, 1995.

Investigation:

On July 24, 1995, a 40-year-old roofer fell from the second story roof of a home he was re-roofing. The victim had been working on re-roofing the home for approximately three months prior to the incident. He mostly worked evenings and weekends while also working as a union commercial roofer during week days.

The residence was a large two-story (plus attic) historical home with a 8-12 pitched roof. The victim had nailed several two-by-four boards across the pitch to work from. He also had a hemp-type safety rope secured around the chimney of the home. The rope had loops tied in it approximately every three feet. According the owners, the victim regularly wore his safety belt and used this safety rope to tie off to.

On the day of the incident, the victim had been roofing along the back edge of the second story roof. He used a 40-foot extension ladder extended just past the roof-line. He also used a shorter, lighter-weight extension ladder to extend from the second story roof down to a first-story roof which extends over the kitchen portion of the home. He had been working off this ladder and the second story roof the evening of the incident. He was last seen walking along the boards he had secured to the roof.

At approximately 7:20 p.m. one of the home owners heard a ladder fall against the house. When she went to investigate she found the victim face down against the wooden steps of the home's back deck. The smaller ladder was positioned on top of the victim. The owner called 911, and police, fire, and ambulance services responded to the scene. The victim suffered a massive head trauma and was unresponsive.

Though the event was not witnessed, several possible scenarios exist. First, the victim may have been working without his safety belt and safety rope when the board he was walking on gave way causing him to fall, and he may have knocked the smaller extension ladder over on the way down. There were two boards on the roof which appeared to be knocked loose. Second, he may have been working off the smaller ladder, which was set unsecured on the pitched roof of the first story kitchen area. The ladder may have lost its footing, and the roofer and ladder fell to the ground. Third, he may have been preparing to quit work for the evening. He may have returned to the roof, leaving his safety belt in his vehicle to retrieve the air roofing nailer which was located in the second story gutter. The boards he was walking across, to get to the nailer, could have given way and he fell.

Cause of Death:

The coroner's report and the death certificate both indicate the victim's cause of death as cerebral hemorrhage and skull and cervical fracture.

Recommendations/Discussion:

Recommendation #1: Employers and self employed persons should ensure that fall protection equipment is used where the potential for a fall from an elevation exists.

Discussion: In this incident the victim was not utilizing any fall protection though the he had fall protection equipment, consisting of a safety belt and a safety rope.

The victim was self-employed and was not required to follow the federal occupational safety and health regulations. However, according to 29 CFR 1926, Subpart M, employees who work at a height of 6 feet or greater are required to use fall protection. A secure anchorage point should be located with a lanyard being tied to the anchorage point.

Anybody working at heights should begin phasing out safety belts and use full-body harnesses. A full-body harness is better because safety belts have been proven not to distribute the force of a fall adequately throughout the body. Though normally not fatal, injuries from wearing safety belts incorrectly during a fall have caused severe and disabling back, abdominal, and cervical trauma. The use of full-body harnesses in private industry will become mandatory in 1998.

The Missouri Department of Health, in co-operation with the National Institute for Occupational Safety and Health (NIOSH), is conducting a research project on work-related fatalities in Missouri. The goal of this project, known as the Missouri Occupational Fatality Assessment and Control Evaluation (MO FACE), is to show a measurable reduction in traumatic occupational fatalities in the State of Missouri. This goal is being met by identifying causal and risk factors that contribute to work-related fatalities. Identifying these factors will enable more effective intervention strategies to be developed and implemented by employers and employees. This project does not determine fault or legal liability associated with a fatal incident or with current regulations. All MO FACE data will be reported to NIOSH for trend analysis on a national basis. This will help NIOSH provide employers with effective recommendations for injury prevention. All personal/company identifiers are removed from all reports sent to NIOSH to protect the confidentiality of those who voluntarily participate with the program.

SIGNATURES:

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