

Siding Installer Dies After Six Foot Fall From Ladder-Jack Scaffolding

MO FACE Investigation # 98MO035

Date: December 29, 1998

Type: Fall

SUMMARY

On February 24, 1998, a 57-year-old male owner (victim) of a residential siding company died following a six-foot fall from scaffolding. The owner and his son (co-worker) were working at a 1½-story home and were in the process of cutting in and stapling up insulation board. The father was working from a walk-board attached to two extension ladders with the use of ladder jacks approximately six feet above a concrete patio. The son was working from one of the extension ladders a few feet above his father. The father was positioning a sheet of insulation while the son was cutting it around a windowsill. Suddenly and without warning the father lost his balance and fell, striking his head on the concrete patio surface. He was taken by helicopter ambulance to the closest trauma center but did not survive the head injury. He died at the trauma center.

The purpose of the FACE Program is to identify risk factors that can and do contribute to worker injury and death, and to make recommendations to employers and individuals on how similar events can be avoided. From the information collected about this incident the MO FACE investigator concluded that:

- c Alternative methods of fall protection should be incorporated when the risk of falling to the next lower level or ground is 10 feet or less, and where there is an unusual risk of injury;
- c Contemporary fall protection, including the use of a full body harness, lifelines and rope grabs should be incorporated when working from ladder-jack scaffolding at heights greater than 10 feet. Ladder-jack scaffolding is not approved for use at heights of more than 20 feet above the ground;

- c Develop, implement, and enforce a comprehensive safety program that includes, but is not limited to, training in fall hazard recognition and avoidance.

INTRODUCTION

On March 17, 1998, the MO FACE investigator was notified of an occupational fatality involving a six-foot fall from scaffolding. The same day, the investigator contacted the company owner's family and arranged for an interview and site visit. On April 9, 1998, the investigator traveled to the owner's home and interviewed his wife and son. After the interview the son and the investigator traveled to the incident site. Site photographs were taken and work had not resumed on the home since the incident.

The company owner and wife have been self-employed in construction most of their working life (approximately 25 years). She explained that they have been installing replacement windows, residential siding and seamless guttering for approximately nine years. The son had been working with his father for approximately 15 years. He indicated he would continue on with the business.

The wife indicated the owner had some health problems including a past heart attack and bypass heart surgery. He remained very active and continued working. The son and the wife indicated they were very safety orientated, and through several of their commercial jobs they had received contractor safety training.

INVESTIGATION

The owner and son contracted to install vinyl siding on a 1½ story home and detached garage. They had worked on the home for several weeks installing the siding and replacing some of the home's windows. They had set up to install siding on the side of the home with a concrete patio. They had two aluminum extension ladders leaned and secured against the home. They also used ladder jacks and a walk-board to span the distance between the ladders. The walk-board was positioned six feet above the ground. They were in the process of tacking the insulation board on the walls of the home before installing the siding. Working from the bottom up they were tacking the second row of insulation on the home. The father was standing on the walk board positioning the insulation board while the son was working from the extension ladder cutting the board around a window. Without any indication that the father was having a

problem, he fell backward off of the walk-board and struck his head on the concrete patio. The son immediately came to his father's aid and summoned help. Emergency services responded to the scene. The father was transported by helicopter to a trauma center. He survived approximately 23 hours after the incident.

CAUSE OF DEATH

Blunt impacts to the head with injury to the brain.

RECOMMENDATIONS / DISCUSSIONS

Recommendation # 1: Employers should ensure that alternative methods of fall protection are used when working at heights of less than 10 feet, and where there is an unusual risk of injury.

Discussion: In this incident the owner was working over a concrete patio surface. The hard surface of the patio provides a higher risk of injury if fell regardless of the height. In this situation an alternative would be to work from other types of raised work platforms than ladder jack scaffolding. The raised-work platform should comply with OSHA standards for work platforms including guardrails, mid-rails and toe-boards.

Recommendation # 2: Employers should ensure that contemporary fall protection is used when working from ladder-jack scaffolding at heights greater than 10 feet. Ladder-jack scaffolding is not approved for use at heights of 20 feet or more than above the ground.

Discussion: The use of contemporary fall protection includes the use of full-body harnesses, shock-absorbing lanyards, lifelines and rope grabs. This equipment and its proper use should be incorporated into a company fall protection plan. All employees should be trained in the hazards of working at heights and how to use all fall protection equipment issued to them. Though many of the OSHA fall protection safety standards

do not apply at this height or to family-owned-and-operated businesses or to self-employed workers, this type of incident could occur with any company and at any given height. Precautions should be taken to prevent similar occurrences.

Recommendation #3: **Develop, implement, and enforce a comprehensive safety program that includes, but is not limited to, training in fall hazard recognition and avoidance.**

Discussion: All employers should emphasize the safety of their employees by developing, implementing, and enforcing a comprehensive safety program. The safety program should include, but not be limited to, training workers in the proper selection and use of personal protection equipment and fall-arrest equipment, along with the recognition and avoidance of fall hazards in the work environment.

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 Program (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 and 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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MO FACE Dissemination List

NIOSH
Alaska Department of Health and Social Services
California Public Health Foundation
University of Iowa
Kentucky Injury Prevention and Research Center
Massachusetts Department of Public Health
Maryland Division of Labor & Industry
Minnesota Department of Health
Nebraska Department of Labor
State of New Jersey Department of Health
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Children's Mercy Hospital
St. Louis City Medical Examiner Office
St. Charles Police Department
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Missouri Hospital Association
Safety Council of Greater St. Louis
MO Department of Elementary & Secondary Education
Missouri Farm Bureau
Missouri State Labor Council
Empire District Electric Company
Mine Safety and Health Administration
Safety Council of the Ozarks
Missouri Department of Mental Health
Missouri Department of Labor and Industrial Relations
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North Central Missouri Safety Council
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