

The Missouri Department of Health, in cooperation 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, 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 will be met by identifying causal and risk factors that contribute to work-related fatalities. The identification of 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 nor 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.

FACE INVESTIGATION # **92MO03401**

SUBJECT:

Roofing Installer Dies After 16-Foot Fall from a Suspended Runway in Missouri.

SUMMARY:

A 33-year-old roofing installer died following a 16-foot fall from a suspended runway. The runway was suspended between the raised scissors bed of a utility truck and a roof of a housing unit. Immediately before the incident, the victim was carrying four-by-eight sheets of used plywood from the housing unit and stacking them on the truck bed. Though the fall was unwitnessed, it is believed the victim was returning to the roof across the runway when he may have lost his balance and the runway slipped off the truck. The victim and the runway both fell in the vicinity of a concrete sidewalk below. The MO FACE investigator concluded that, in order to prevent similar occurrences, employers should:

- * **ensure that runways utilized four feet or more above the ground or floor are equipped with standard railings**
- * **ensure that these runways are secured at both ends to prevent dislodging.**
- * **consider and address worker safety in the design and planning stages of construction projects**
- * **develop, implement and enforce a comprehensive safety program that includes, but is not limited to, training in fall hazard recognition.**

INTRODUCTION:

On August 16, 1992, a 33-year-old roofing installer died as a result of injuries he received in a 16-foot fall from a suspended runway. The Occupational Safety and Health Administration was notified of the incident and conducted an inspection of the worksite. The MO FACE investigator was notified on August 17, 1993, and conducted an interview with the employer. The MO FACE investigator obtained copies of police and medical examiners' reports, and the OSHA citations.

The employer in this incident is a roofing contractor who had been in business for nine months. The company employed ten persons at the time, and the victim's job title was shingle crew foremen. The company did employ a safety officer, and had have a safety and health committee. The victim was present for a tailgate safety meeting on the first day of the work week.

INVESTIGATION:

The company had contracted to remove and replace plywood decking and roofing materials on a multi-family, two-story apartment complex. They had been working at this site for five days prior to the incident. The work consisted of removing existing roofing material and replacing the decayed plywood decking underneath, then replacing the roofing material. The company utilized a scissor-lift-bed-truck and a 24-foot-long, 1-foot-wide aluminum walkboard on this project. The bed of the truck was lifted to its full height of 16 feet, and the walkboard was lifted up and spanned approximately 22 feet, the distance between the truck bed and the housing complex under repair. The employer stated that workers normally secured the walkboard to the truck bed with a length of rope. The walkboard was used as a runway to carry materials to and from the roof and the truck bed.

On the day of the incident, the work-day began at 6:30 a.m. at the company office, and the roofing crew traveled together to the work-site. The workers were removing the roofing materials and the old plywood decking, carrying them across the runway, and placing them on the raised bed of the truck. Reportedly, the truck bed was becoming full, so the walkboard was moved toward the back of the truck to allow for more room for the used plywood decking and roofing materials. The employer is not sure who moved the runway, but it may not have been secured to the truck bed. The victim was last seen by a co-worker carrying a four-by-eight-foot sheet of plywood from the roof of the complex. Though the following series of events were unwitnessed, it is believed that immediately before the incident the victim crossed the runway and placed the plywood sheet neatly onto the existing stack of used plywood. He then began crossing the runway back to the roof when he may have lost his balance and/or the unsecured walkway slipped from the bed of the truck and both fell to the concrete sidewalk below.

The co-workers heard a loud crash and went to investigate. They found the victim lying on the ground semi-conscious. A co-worker immediately went to call 911 and request emergency

personnel. Ambulance personnel arrived, and after assessing the victim's injuries, requested that the victim be air transported to the local trauma center.

The victim was received by an emergency trauma center and was undergoing a CAT scan when he went into respiratory arrest. He was pronounced dead at 12:30 PM.

CAUSE OF DEATH:

Blunt Craniocerebral Trauma

RECOMMENDATIONS/DISCUSSION:

RECOMMENDATION #1. Employers should ensure that runways utilized four feet or more above the ground or floor are equipped with standard railings.

DISCUSSION: In accordance with 29CFR 1926.500 (d) (2) runways should be equipped with standard railings or the equivalent.

RECOMMENDATION #2. Employers should ensure that these runways are secured at both ends to prevent dislodging.

DISCUSSION: Runways should be secured to the building and to the truck bed to prevent the possible dislodging and falling to ground. The employer and a co-worker both stated that they normally secure the walkboard to the truck with a safety rope. According to a police report, no such safety rope was found during their investigation. During a reenactment at the request of the police, they noted that the walkboard was secured to the truck with a length of rope.

RECOMMENDATION #3. Employers should consider and address worker safety in the design and planning stages of construction projects.

DISCUSSION: Worker safety issues should be discussed and incorporated into all construction projects during planning and throughout the entire project. The planning for and incorporation of safety measures, prior to any work being performed at construction sites, will help to identify potential worker hazards so that preventive measures can be implemented.

RECOMMENDATION #4. Employers should develop, implement and enforce a comprehensive safety program that includes, but is not limited to, training in fall hazard recognition.

DISCUSSION: 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, along with the recognition and avoidance of fall hazards.

REFERENCES:

Office of the Federal Register, Code of the Federal Regulations, Labor, 1926.500 (d) (2), PP.189.
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SIGNATURES:

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