Massachusetts Maintenance Supervisor Dies in Twenty Foot Fall Through Rooftop Skylight Opening

MASSACHUSETTS FACE 94-MA-02

SUMMARY

On October 3, 1993, a 28 year old, male, hispanic maintenance supervisor was fatally injured when he fell twenty and one-half feet through a mall rooftop skylight opening. The victim was apparently attempting to secure a tarpaulin over the opening during inclement weather when he fell into the opening. Approximately 45 minutes later, a co-worker found him lying motionless on the floor of a mall restaurant. Emergency medical services responded and transported the victim to a regional hospital where he died within hours of the fall. The MA FACE Program Field Investigator concluded that to prevent similar future occurrences, employers should:

- **require skylight openings to be adequately protected**
- **consider and address worker safety in the planning phase of projects and do so on a daily basis if necessary**
- **develop, implement, and enforce a comprehensive safety program that includes, but is not limited to, worker training in fall hazard recognition**

INTRODUCTION

On October 13, 1993, the U.S. Department of Labor Regional OSHA Office notified MA FACE that a fall had claimed the life of a 28 year old, male maintenance supervisor on October 3, 1993. An investigation was immediately initiated.

On October 26, 1993, the MA FACE Program Field Investigator travelled to the incident site and interviewed the general manager of the mall and the property owner's project manager. The death certificate, municipal police report, company organization data, OSHA information relating to the incident, and a mall security guard report were obtained during the course of the investigation.

The employer was a large scale retail property development and management company which had been in business for thirteen years and ten months. The company employed thirty persons at the mall in various property management occupations. One other person

held the same job title as the victim. The property manager reported that he was the designated safety officer. He was present at the jobsite full time and devoted less than twenty-five percent of his time to safety. There were no written comprehensive safety or health rules, policies and/or committees in place at the time of the incident.

The victim was a 28 year old hispanic non-union maintenance supervisor who was employed by the company for approximately two and one-half years. He had worked at the incident site for the last four months. His training was primarily on the job.

INVESTIGATION

Several weeks prior to the incident, the property development and management company began substantial renovations on a thirteen year old, three hundred and fifty thousand square foot, retail shopping complex. On September 28, 1993, the company wrecking crew removed the mall's diagonally installed rooftop windows. The windows were to be later replaced. While the company was waiting for the replacements, the openings were covered with tarpaulins. The purpose of the tarpaulins was to protect the interior of the mall from inclement weather.

On numerous occasions, company personnel were instructed to secure the rooftop tarpaulins which had become displaced due to various weather and wind conditions. On October 1, 1993, two company employees were reported to have been on the roof for approximately five hours while attempting to keep the tarpaulins tied down in windy conditions. On October 2, 1993, rooftop weather conditions were so turbulent that the victim and a co-worker reportedly abandoned repeated attempts to keep the tarpaulins tied down.

Because the tarpaulins were left unsecured, a driving rain flooded a mall restaurant during stormy weather in the early morning hours of October 3, 1993. At approximately 5:30 a.m., the victim went to the rooftop alone in an effort to once again secure the problematic tarpaulins. Apparently, while he was attempting to secure the tarpaulin in the stormy weather, the victim fell twenty and one-half feet through the approximate three by four and one half foot diagonal window opening. The victim fell through the opening, through a suspended ceiling, and landed on the tile-covered concrete restaurant floor.

After approximately 45 minutes, a coworker discovered the victim and summoned emergency medical services. The victim was transported to a regional hospital where he was pronounced dead shortly after arrival.

CAUSE OF DEATH

The medical examiner listed the cause of death as craniocerebral injuries.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Employers should require skylight openings to be adequately protected.

Discussion: The OSHA General Industry Standard 29 CFR 1910.23(a)(4) requires that "every skylight opening and hole shall be guarded by a standard skylight screen or a fixed standard railing on all exposed sides." OSHA Standards 29 CFR 1926.500 (b) and 1926.500 (f)(5)(ii) further specify that temporary or emergency floor openings shall be guarded by a standard railing and toeboard, or with a secured cover capable of supporting the maximum intended load. Furthermore, covers must be installed so as to prevent accidental misplacement. In instances where a guardrail or cover is not practical for the work being

done, alternative forms of equally protective fall protection, such as a safety net, catch platform, or safety harness and lanyard could be used. Had some form of fall protection been used to guard the skylight openings, this death could have been prevented.

Recommendation #2: Employers should consider and address worker safety in the planning phase of projects and do so on a daily basis if necessary.

Discussion: Prior to project engagement and prior to each phase thereafter, the employer or project foreman, and the designated safety officer, should identify the safety hazards likely to arise during the course of work. Potential safety hazards, such as unguarded roof openings, should be identified and anticipated, and appropriate control strategies developed. The time between removal and replacement of skylight coverings should be minimized.

Furthermore, the project manager and safety officer should review the potential hazards with employees, and discuss control strategies and safe work practices. These discussions should include information about hazards in the immediate work area as well as information about the overall site that could create additional hazards for workers. Had worker safety been considered during project planning, the fall hazard of the unprotected skylight openings might have been identified, and the victim's death may have been prevented.

Recommendation #3: Employers should develop, implement, and enforce a comprehensive safety program that includes, but is not limited to, worker training in fall hazard recognition.

Discussion: The company did not have a comprehensive safety program, nor provide safety training. Employers should develop, implement and enforce a comprehensive safety program that includes, at a minimum, routine job site hazard surveys, the use of appropriate fall protection, and worker training in the recognition and avoidance of fall hazards. Employers should also appoint an individual with safety knowledge and the authorization to take corrective measures to eliminate hazards, to be the designated safety officer, or competent person, on site.

LIST OF REFERENCES

Office of the Federal Register: Code of Federal Regulations,

Labor 29 Parts 1926.500 (b), and 1926.500 (f)(5)(ii) 1993

To contact Massachusetts State FACE program personnel regarding State-based FACE reports, please use information listed on the Contact Sheet on the NIOSH FACE web site Please contact In-house FACE program personnel regarding In-house FACE reports and to gain assistance when State-FACE program personnel cannot be reached.

Back to Massachusetts FACE reports (http://wwwn.cdc.gov/NIOSH-FACE/Default.cshtml?Category=0000&Category2=ALL&State=MA&Submit=Submit)

Back to NIOSH FACE Web

Page last reviewed: November 18, 2015
Content source: National Institute for Occupational Safety and Health