

Roofing Estimator Dies After Falling 14 Feet From The Roof of a Shopping Center Strip Mall

DATE: April 4, 1994

SUMMARY

On October 7, 1993, a 52 year-old male roofing company estimator was critically injured after falling 14 feet from the roof of a shopping mall. The incident occurred as the victim was inspecting the flat roof of the mall for water leaks. The victim climbed onto a sloped roof that fronted the flat roof and lost his footing on the shingles, falling to the pavement below. He was hospitalized and later died of complications related to his injury on October 15, 1993. NJDOH FACE investigators concluded that, to prevent similar occurrences in the future, these safety guidelines should be followed:

- **Employers should develop and implement a comprehensive safety program that includes (but is not limited to) training in recognizing hazardous situations and the use of fall protection devices.**
- **Building designers should consider installing devices to facilitate fall protection systems during the design and construction of new buildings.**

INTRODUCTION

On October 18, 1993, NJDOH FACE personnel learned about this work-related fatality from the county medical examiner's office. On October 29, 1993, FACE investigators conducted a site visit of the incident site to photograph the scene and interview the company owner. Several witnesses from the stores near the incident site were also interviewed. Additional information on the incident was obtained from the OSHA investigation file and the police and medical examiner's reports.

The employer was a small roofing contractor who has been in business since 1986 and employed 12 workers at the time of the incident. The company specialized in repairing and replacing flat roofs and did not work on shingled roofs. The victim was a 52 year-old male roofing troubleshooter-estimator that had worked for the company for three years. He had approximately 35 years of experience and was considered by the owner to be the company's safety person. The owner described him as a very safe worker.

INVESTIGATION

The incident occurred on the roof of a suburban strip mall style shopping center. The shopping center was composed of a large single-story building that held a variety of small shops and restaurants. The building had a flat tar roof surrounded by a low parapet wall. In the front of the building was a sloped

shingled roof that overhung and covered the sidewalk in front of the stores. This roof also had several decorative peaks with varying slopes. The building was approximately 5 years old.

The company was under a verbal contract with the owner of the shopping center to repair the flat roof when necessary. When the company received a complaint, they sent a troubleshooter-estimator to the site to find the problem and estimate the equipment and manpower needed to fix it. The estimator usually worked alone but would sometimes be met by the company owner at the worksite before dispatching a work crew. The company had been at this shopping center several times before for other unrelated repairs.

There were no witnesses to this incident. The morning of the incident was clear and cool. The company had sent the victim to check on a complaint of water leaking into one of the stores. The victim arrived at the building, parked in the back, and set up a ladder to the roof. Working alone and without tools, the victim apparently walked along the flat roof to check for any defective seams and seals. Finding none, he stepped out onto the sloped section of the roof to examine the asphalt shingles. This section of the roof was located between two decorative peaks and had a slope of about 30 degrees. The victim later told his employer that he felt the shingles crumble under his feet as he walked on the roof. (The police described the roof as dry and slippery, with loose shingle granules making footing difficult). At about 9:30 a.m., workers in the nearby stores heard the victim moaning and called for help. He was found conscious and lying on his side with injuries to his chest, hip, and arm. The police and EMS soon arrived and transported him to the local emergency room where he was admitted to the hospital. He died of complications related to his injury on October 15, 1993, eight days after the incident.

CAUSE OF DEATH

The cause of death was determined to be from acute respiratory failure due to a pulmonary embolism. An autopsy was not performed.

RECOMMENDATIONS/DISCUSSIONS

Recommendation #1: Employer should develop and implement a comprehensive safety program that includes (but is not limited to) training in recognizing hazardous situations and the use of fall protection devices.

Discussion: In this incident, the victim apparently did not recognize the hazard of walking on the 30 degree slope of the roof. Also, it may not have been necessary for him to be on the slope since the company did not usually repair shingled roofs. We recommend that employers should develop and implement a comprehensive employee safety training program that includes (but is not limited to) training in recognizing and avoiding hazardous situations. If a hazardous area must be entered, then personal protective gear such as fall protection should be used. If fall protection is not available or practical, then the employees should be instructed not to enter a hazardous area until it can be made safe. It should be noted that the federal OSHA standard 29 CFR 1926.500(g) requires fall protection when working on roofs with a ground to eave height greater than 16 feet.

Recommendation #2: Building designers should consider installing devices to facilitate fall protection systems during the design and construction of new buildings.

Discussion: To facilitate the use of fall protection devices, we recommend that building designers should consider fall protection systems during the design of the building. This may include designing an easily available attachment point (such as a stanchion) for connecting a lifeline.

REFERENCES

It is important that employers obtain correct information about OSHA standards and methods of ensuring safe working conditions. Because it is often difficult for a small business person to obtain this type of information, the following sources may be helpful:

U.S. Department of Labor, OSHA

On request, OSHA will provide information on safety standards and requirements for fall protection. OSHA has several offices in New Jersey which cover the following areas:

Hunterdon, Union, Middlesex, Warren and Somerset Counties.....(908) 750-4737
Essex, Sussex, Hudson and Morris Counties.....(201) 263-1003
Bergen and Passaic Counties.....(201) 288-1700
Atlantic, Gloucester, Burlington, Mercer, Camden, Monmouth,
Cape May, Ocean, Cumberland and Salem Counties.....(609) 757-5181

NJDOL OSHA Consultative Services

The New Jersey Department of Labor OSHA Consultative Service will provide free advice for business owners on methods of improving health and safety in the workplace and complying to OSHA standards. Their telephone number is (609) 292-3922.

New Jersey State Safety Council

The NJ Safety Council provides a variety of courses on work-related safety. There is a charge for the seminars. Their address and telephone number is:

NJ State Safety Council
6 Commerce Drive
Cranford, New Jersey 07016
Telephone (908) 272-7712

Other Sources

Building trade organizations and labor unions are a good source of information on suppliers of safety equipment and training. Suppliers of roofing and building materials may be able to refer roofing contractors to suppliers of fall protection equipment.

To contact [New Jersey 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.