

Carpenter Dies After Falling From A Ladder At A Construction Site

DATE: June 22, 1995

SUMMARY

On March 17, 1995, a 40 year-old male carpenter died after falling about 20 feet from a ladder at the construction site of new townhouses. The victim was nailing sheets of particle board to the side of the building when his ladder apparently slipped, causing him to fall to the concrete floor below. NJDOH FACE investigators concluded that, in order to prevent similar incidents in the future, the following safety guidelines should be followed:

- **Employers should ensure that ladders are properly maintained and that employees are properly trained in the safe use of ladders.**
- **Employers should conduct a daily job hazard analysis of the work site with the participation of the workers.**
- **Employers and employees should be aware of the dangers of alcohol and other drugs that may impair judgement or alertness.**
- **Employers should become familiar with available resources on work-related safety standards and safe work practices.**

INTRODUCTION

On March 20, 1995, FACE staff were informed by the county medical examiner's office of a work-related fatal fall that occurred at a construction site on March 17. On March 22, FACE investigators visited the site in an attempt to contact the employer. Although the employer was not present, investigators did talk with the contractor who sub-contracted the victim's company. FACE investigators also photographed the incident site and spoke with the police detective who investigated the incident. Due to language problems, the FACE data collection instrument was mailed to, and completed by, the employer and his interpreter. Additional information was obtained from the OSHA compliance officer, police report, and medical examiner's report.

The employer was a small building construction contractor who had been in business for about 13 months and employed a total of four workers. The employer had a written safety program, however it did not contain procedures for ladder use or fall protection. The victim, a Russian immigrant, had worked for the employer as a carpenter for about two weeks. It was the victim's fifth day at work at the construction site.

INVESTIGATION

The incident occurred at the construction site of a townhouse complex located in a suburban area. The complex consisted of three separate groups of adjoining 24-unit townhouses in various stages of completion. The three story, wood frame structures were built under the direction of a general contractor who sub-contracted a construction company for most of the carpentry work. This construction company then sub-contracted the victim's company to do the sheeting work on the townhouses. The victim's company worked independent of the construction company, who only checked on the quality of the sheeting work.

There were no witnesses to the incident. The weather that day (a Friday) was clear with with temperatures in the mid 60's. At about 8 a.m., the victim arrived for work with another employee. There were three company carpenters there that day, all working on sheeting the exterior of the building with 4 by 8 foot particle board sheets. The employer was also there in the morning, stating that he last saw the victim nailing the sheets early that day. The sheets had already been positioned by other workers who temporarily set them on the exterior wall frames with half-driven nails. Working alone, the victim completed the job by climbing 6 to 25 up feet on a ladder and driving 60 nails into each sheet. At the time of the incident, the victim was working on a 32 foot aluminum extension ladder set on a smooth concrete floor and extended up to a large window on the third floor. The sheeting that needed to be secured was to the front and left sides of the ladder. At about 2 p.m., a worker at another building heard a ladder slide. He went over towards the sound and found the victim lying face down at the base of the ladder with his arm over the first rung. The top of the ladder was leaning towards the victim's right side. The worker called to a fire inspector who notified the police. Several workers assisted the victim, who was bleeding badly and was having trouble breathing. The police arrived and took over first aid followed by the EMS who started CPR. Despite their efforts, the victim was declared dead at the scene at 2:22 p.m.

It is not known exactly how far the victim fell, although the ladder was positioned for working about 20 feet above the ground. The OSHA file noted that the rubber slip resistant feet on the ladder were jammed in the up position and could not be pulled down. The victim was found still holding nails in his hand.

CAUSE OF DEATH

The medical examiner determined the cause of death to be from blunt force injury to the head. The toxicology report noted a blood alcohol level of 0.121 percent.

RECOMMENDATIONS/DISCUSSIONS

Recommendation #1: Employers should ensure that ladders are properly maintained and that employees are properly trained in the safe use of ladders.

Discussion: The OSHA file noted that both slip resistant feet on the ladder had been jammed upwards and could not make contact with the concrete. This may have been a factor in the incident as smooth concrete is often slippery. To prevent similar incidents in the future, FACE recommends that all

damaged ladders must be taken out of service and repaired. Employees must also be properly trained to safely use and position ladders. In cases where the ladder may not be secure, it is necessary to tie the ladder off at the top to prevent slipping. Training, securing, and other requirements for ladders are listed in the federal OSHA ladder standard 29 CFR 1926.1053.

Recommendation #2: Employers should conduct a daily job hazard analysis of the work site with the participation of the workers.

Discussion: It is not know how long the damaged ladder may have been used at the work site. To identify potential hazards such as this, it is recommended that employers conduct a daily job hazard analysis of the work area with their employees. This can be done during one of the frequent inspections by a competent person required under the federal OSHA standard 29 CFR 1926.20 (b)(2). This inspection should include an examination of the work area for fall hazards, loose debris, electrical, and other hazards the workers may encounter. After identifying the hazards, the workers should be instructed on how to correct or avoid them.

Recommendation #3: Employers and employees should be aware of the dangers of alcohol and other drugs that may impair judgement or alertness.

Discussion: The victim was found to have a blood alcohol level of 0.121%, which is above the legal limit of 0.1% for operating a motor vehicle in New Jersey. The FACE project recommends that employers and employees should be aware of the dangers that alcohol and other drugs (including prescription, non-prescription, and illegal drugs) may present in the workplace. Safety training should include strong warnings about the use of alcohol or any drug that may impair a worker's judgement, alertness, and physical abilities. Employers should strictly prohibit working while under the influence of alcohol.

Recommendation #4: Employers should become familiar with available resources on work-related safety standards and safe work practices.

Discussion: It is extremely important that employers obtain correct information about methods of ensuring safe working conditions and adhering to all OSHA standards. The following sources of information may be helpful:

U.S. Department of Labor, OSHA

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

Hunterdon, Middlesex, Somerset, Union, and Warren counties.....(908) 750-4737
Essex, Hudson, Morris, and Sussex counties.....(201) 263-1003
Bergen and Passaic counties.....(201) 288-1700

Atlantic, Burlington, Cape May, Camden, Cumberland,
Gloucester, Mercer, Monmouth, Ocean, and Salem counties.....(609) 757-5181

NJDOL OSHA Consultative Services

This organization, located in the New Jersey Department of Labor, will provide free advice for business owners on methods of improving health and safety in the workplace and complying with 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. The address is 6 Commerce Drive, Cranford, NJ 07016, telephone (908) 272-7712.

REFERENCES

Code of Federal Regulations 29 CFR 1926, 1991 edition. U.S. Government Printing Office, Office of the Federal Register, Washington DC.

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.