DATE: September 15, 1992

FROM: Fatal Accident Circumstances and Epidemiology (FACE) Project
Minnesota Department of Health (MN FACE)

SUBJECT: MN FACE Investigation MN9210
Carpenter Dies from Falling Off a Porch Roof of a Private Home

SUMMARY

A 20-year-old male carpenter (victim) died as a result of head injuries ten days after falling off a porch roof of a private home. The roof was 12 feet from the ground to the eaves with a 4 to 12 pitch (a 4" rise to every 12" run). He was applying shingles to the roof and was two rows from completion. The incident occurred in the morning on a dry spring day. A nearby coworker, with his back toward the victim, was installing flashing. The coworker heard a thump as the victim fell off the roof, hit a ladder jack scaffold below, and landed on the sidewalk. No fall protection devices were being used by the victim at the time of the incident. MN FACE investigators concluded that, in order to prevent similar occurrences, the following guidelines should be followed:

> provide training for all employees involved in roofing work so that they are able to recognize and control the hazards of falling; and

> use fall protection systems such as catch platforms or safety belts while performing roofing work to prevent fall injuries.

INTRODUCTION

On May 10, 1992, a work-related death of a carpenter came to the attention of MN FACE personnel while reviewing death certificates on June 21, 1992. The Minnesota Occupational Safety & Health Administration Division (MN OSHA) was contacted and a report was requested. A police report of the incident was also requested. The victim's employer was contacted and interviewed via telephone. A site investigation was not performed because the job was finished the day of the incident, because the worker who was on the scene that day left the company, because of the long delay between incident occurrence and investigation, and because of other more pressing ongoing MN FACE investigations.

The victim worked for a small (four person) construction company for approximately 18 months. During that time he had not performed a great deal of shingling work. On-the-job safety training by the company for its employees was provided. The company does not have a safety officer, and no formal safety program was in place at the time of the incident.

INVESTIGATION

The incident occurred in the morning on a spring day. According to one of the company's partners, the weather was clear and sunny. The victim and one other worker were on the porch roof; it was dry and uncluttered. The victim was cutting shingles for the roof and was two rows from completion. The roof height was 12 feet from the ground to the eaves with a 4 to 12 pitch. The coworker had his back toward the victim and did not see him fall. He heard a thump as the victim fell from the roof onto a plank of the ladder jack scaffold, and then onto the cement sidewalk. It is thought that the victim was standing upright just before the fall and lost his balance.

Emergency help was summoned. The homeowner, who happened to be an LPN with first aid and CPR certification, was on the scene almost immediately. She ensured that the victim was kept as quiet as possible until the first responders arrived. The fall resulted in skull fractures, facial abrasions, and a toe injury to the victim. He died ten days later in the hospital.

CAUSE OF DEATH

The cause of death listed on the death certificate was closed head injury due to or as a result of a fall.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Employers should train employees involved in roofing work to recognize and control the hazards of falling.

Discussion: Employers should develop a training program for employees working on roofs which trains them to recognize fall hazards and assures that they understand the

safety procedures to be followed in order to prevent such falls. In addition, training should be regularly reviewed and reinforced so that employees maintain proficiency in these areas.

Recommendation #2: Use fall protection systems, such as catch platforms or safety belts and lanyards, to prevent fall injuries to employees who perform roofing work. This recommendation is in accordance with 29 CFR 1926.451(u)(3).

Discussion: Though 29 CFR 1926.451(u)(3) applies to roofs with a ground to eave height of greater than 16 feet, the same types of fall hazards exist on roofs of less height as evidenced by this incident. Before performing roofing work, even on roofs less than 16 feet from the ground to the eaves, erecting a catch platform or tying off to a substantial building structure with an approved safety belt and lanyard is a safe and effective work practice which employers should encourage and support. If a safety belt and lanyard are used, it should be rigged to allow the movement of employees only as far as the roof edge.

REFERENCES

1. Office of the Federal Register, Code of Federal Regulations, Labor, 29 CFR Part 1926.451(u)(3), U.S. Department of Labor, Occupational Safety and Health Administration, Washington D.C., July 1991.