F.A.C.E. INVESTIGATION REPORT

Fatality Assessment and Control Evaluation Project

FACE #95-NJ-092-01 Cable TV Installer Killed After Falling 21 Feet From a Ladder



New Jersey Department of Health and Senior Services Occupational Disease and Injury Services P.O. Box 360 Trenton, New Jersey 08625-0360 (609) 984-1863 TO: Division of Safety Research

National Institute for Occupational Safety and Health

Morgantown, West Virginia 26505

FROM: Fatality Assessment and Control Evaluation (FACE) Project

New Jersey Department of Health (NJDOH)

SUBJECT: Face Investigation #95-NJ-092-01

Cable TV Installer Killed After Falling 21 Feet From a Ladder

DATE: January 17, 1995

SUMMARY

On August 29, 1995, a 34-year-old cable television installer was killed after falling approximately 21 feet from a ladder. The incident occurred while the victim and a co-worker were replacing a cable TV coaxial cable leading from a utility pole to a private residence. The victim climbed an extension ladder that had been set against a wire rope "strand" that ran with the coaxial cable between two utility poles. When he cut the coaxial cable leading to the house, the tension created by the wire was released, jolting and throwing the victim from the ladder he was standing on. The victim fell to the asphalt road and suffered fatal head injuries. NJDOH FACE investigators concluded that, to prevent similar incidents in the future, these safety guidelines should be followed:

o When practical, employers should provide and require the use of a stable work platform for working at elevated work sites.

INTRODUCTION

On August 30, 1995, an area OSHA compliance officer informed FACE personnel about a work-related fatal fall. A FACE investigator immediately contacted the employer, who allowed a joint investigation with OSHA that was scheduled for the next day. The FACE investigator was permitted to observe and participate in the OSHA interview of the co-worker who witnessed the incident, and later examined and photographed the incident site. Additional information was obtained from the OSHA investigation file, medical examiner's report, and police report.

The employer was an independent cable television contractor who did service and installation work for the area cable providers. The company had been in business since 1972, and employed 150 workers. Job and safety training included a six-day company course with both classroom and hands-on training in cable installation, followed by written and practical examinations. The company also had a comprehensive written safety program, including ladder use and fall protection.

The victim was a 34-year-old cable television installer who worked for the company for about three weeks. He was hired on August 5, 1995 as a piecework installer (paid by the job) and immediately attended the company training course in TV cable installation. He successfully completed the one week course and started work under the supervision of an experienced installer. His co-worker on the day of the incident was an in-house (paid hourly) quality controller & installer who had been hired on the same day as the victim. Although he had previously worked for the company, he attended the same training course with the victim.

INVESTIGATION

The incident occurred on a Monday morning alongside a road that traveled past several suburban neighborhood. The owners of a house along the road were having problems with their cable TV connection and had called the company for service. When the victim and co-worker arrived for work at 8:00 a.m., the supervisor assigned them to troubleshoot and fix the problem. The supervisor also told the co-worker (who had previous experience in cable TV) to observe the victim and assess his job performance. The victim had only worked with an experienced installer and had not yet been out on his own. This assessment would determine if he was ready to work alone. The victim was aware that his work was being assessed when they left for the site.

The two men arrived at the house at 9:45 a.m.. The co-worker first went to troubleshoot the problem, and found that a faulty connector needed to be replaced. Since he did not have the correct size connector, the co-worker called his supervisor for instructions. He was told to rerun the cable leading to the house. This required replacing the entire coaxial cable that started at a junction box on the main cable, ran across the street and through some trees to a utility sub-pole, and then to the customer's house (see figure 1). The crew moved the truck to a side road near the junction box where the ladder would be set up. They discussed the job and planned to rewire the same route using a thinner cable. They also talked about where to cut down the old cable, deciding to cut it from the street instead of the sub-pole near the house. The victim was to start at the cable junction box by the road while the co-worker would work on the house. They also decided the victim would do most of the work, and that the co-worker would assist him.

The victim set up the ladder to the junction box, which was mounted on the main TV cable line midway between two utility poles, about 21 feet off the ground. Running with the cable was a 3/8-inch wire rope "strand" that the employer stated would support 3,000 pounds. The strand was used to hold the ladder and served as a tie-off point for a safety harness. The victim raised the 28-foot fiberglass extension ladder and positioned it so the ladder's built-in hooks caught the wire rope strand. At this point the co-worker came by and noticed that the ladder was set up wrong. Company policy specifically stated that ladders should be set up to face the house, so that the ladder would not be affected if the cable tension was released. The co-worker told him to reset the ladder, and the victim replied "fine." The co-worker then went back to the house.

At about 11:00 a.m., the co-worker returned to the truck and saw the victim on the ladder. The victim had not reset the ladder and was not wearing fall protection as required by the company (company policy was to wear a safety belt with the lanyard attached to the strand). The co-worker started to tell him to put on the safety belt when the victim cut the cable leading away from the junction box. As the tension from the cable was released, the main cable and strand swung backwards, whipping the ladder attached to it. Although the ladder did not come off the strand, the movement threw the victim off the ladder to the asphalt road. The co-worker ran to the house and called the police, who responded with the first aid squad. The victim was transported to the local hospital where he was pronounced dead at 1:50 p.m..

It is not known why the victim did not reset the ladder or use fall protection. The co-worker stated that the company had specifically trained them to avoid this type of situation and to always wear fall protection.

CAUSE OF DEATH

The county medical examiner determined that the cause of death was from craniocerebral injuries.

RECOMMENDATIONS/DISCUSSIONS

<u>Recommendation #1</u>: When practical, employers should provide and require the use of a stable work platform for working at elevated work sites.

<u>Discussion</u>: The use of a ladder for cable TV installation is acceptable if the proper safety precautions are followed. To enhance safety, FACE recommends that employers should consider using elevated work platforms for work at heights. An elevated platform such as a "cherry picker" truck or personnel lift would provide a stable and secure platform for the employee to

work from.

DISTRIBUTION LIST

Immediate Distribution

NIOSH

Employer

NJ State Medical Examiner

County Medical Examiner

Local Health Officer

NJDOH Census of Fatal Occupational Injuries (CFOI) Project

General Distribution

USDOL-OSHA Region II Office

USDOL-OSHA New Jersey Area Offices (4)

NJDOL OSHA Consultative Service

NJDOL Public Employees OSHA

NJDOH Public Employees OSHA

NJ State Safety Council

NJ Institute of Technology

NJ Shade Tree Federation

NJ Utilities Association

University of Medicine & Dentistry of NJ

Jersey Central Power & Light

Public Service Electric and Gas Company

Atlantic Electric

Liberty Mutual Insurance Company Research Center

Private Consultants and Companies (3)