

Lineman Falls 40' From Hopper in Wyoming

SUMMARY

A 32 year old male electrical lineman died from injuries suffered while installing a new power line. The victim was inside a crane operated basket at a height of approximately 40' and had moved outside the stability of the basket to reach a connector when the roll of conductor wire became dislodged, causing the tension of the wire to knock the victim from the basket to the ground. He was taken by ambulance to a hospital some 15 miles distant, where he died from the injuries received as a result of the fall. Those injuries included fractures of the right 2nd through the 10th ribs, probable tension pneumothorax, subcutaneous air along the right thoracic cage, pulmonary contusion, and probable fractures of the posterior aspects of the left 8th through 10th ribs. The victim was not secured by a safety belt or lanyard and had moved outside the safety of the basket floor while attempting to secure the wire. He had been using the crane boom as a lift to move the wire from the roll into position for securing, and was positioned so that if the wire were to come loose from the boom he would be in its normal path of movement.

Employers may be able to minimize the potential for occurrence of this type of incident through the following precautions:

- **Enforce safety rules for working at heights, including rules that workers must use safety belts or lanyards at all times**
- **Provide safety incentives that encourage employees to use caution and develop good safety habits and to avoid any shortcuts that decrease safety**
- **Establish common-sense rules that promote safety and discourage such unsafe practices as using boom cranes to lift or guide materials or moving outside a safe basket area to reach a distant area.**

INTRODUCTION

On a Friday morning, October 8, 1993 a lineman was working on a crew that was installing power poles and new line in a remote area some 15 miles up a canyon road from the nearest hospital. The victim had worked for the company with which he was employed as a lineman for 12 years, and was serving as lineman/foreman on a line installation project for the past 3½ months. The project was to lay 34 miles of new transmission line, and was scheduled to end in less than 2 months when the incident occurred.

The weather was cold on the day that the incident occurred. The ground was wet and muddy, and there was occasional snow during the day. The victim was inside a basket attached by a boom to a 25 ton hydraulic crane. The basket was extended approximately 40' from the ground, and the victim's job was to secure the conductor wire to a supporting insulator on the pole by means of a clamping device. One

end of the wire had already been secured to other poles and the other end was on a roll. The victim was using the end of the boom to lift the wire to the insulator.

INVESTIGATION

The WY- Wyoming FACE Project was notified by the county coroner on the afternoon of the day the incident occurred. Reports were requested and received and an investigation was conducted.

The project being conducted was to lay out new transmission line over a thirty mile area within a time-span of approximately 5 months. The victim was acting as a working foreman on the project, being a 12 year employee of the company and one who was considered by his employer and co-workers as highly knowledgeable in his work. He was also considered as a person who preferred autonomy and did not react well to authority, and as having a tendency to take short cuts when he considered it feasible. He had been seen in the past not wearing his safety belt, and had been told to put it on. The company required safety belt use during line work, but the employee resisted the requirement. At the time of the incident, he was not wearing a safety belt or secured by a lanyard.

The workplace was in a rural area adjacent to a county roadway in cold weather with occasional snowfall. The ground was wet and muddy around the work area. The victim was inside a basket which had been lifted by a 25 ton hydraulic crane to a height of some 40' to a pole where conductor wire was to be attached to a supporting insulator. The pole was between and slightly out of line with two other poles where cable had already been secured. The angle caused by the dis-alignment of the three poles was approximately 13°, and the victim was positioned within that angle where an unexpected movement of the wire might strike him. He was also outside the basket floor in order to reach the connector and was therefore off balance.

CAUSE OF DEATH

The Medical Examiner listed the cause of death as accidental trauma due to hemopneumothorax due to probable aortic disruption.

RECOMMENDATIONS/DISCUSSION

This incident could have been prevented by the victim himself by applying prescribed safety practices. The company requires its employees to use safety belts or lanyards whenever they are working at heights. The victim had been seen earlier not wearing a safety belt and had been warned about it. He had worked for the company for 12 years, was considered to be very knowledgeable in his work and was in the position of foreman for the project. His co-workers noted he liked to do things his way and often took shortcuts. He had recently been in an automobile crash, and witnesses suggested he was trying to prove that his abilities had not been lessened.

One must question whether a person who appears to disregard safety practices should be placed in a position to lead others. The assignment to foreman of the crew apparently resulted from his skills rather

than attitudes. Yet the fact that his employer knew the victim was in the habit of unsafe practices and yet named him to a supervisory position suggests at least passive sanction to the victim's decision to overlook safety rules. Since the victim's co-workers knew of his tendency toward defying safety rules there was an indication that safety practices may not be tied to promotion in this company. That is a dangerous precedent to set in a company where the multiple hazards of working at height and proximity to electric power sources exist. It would have been to the company's advantage to enforce safety with increased rigor.

As any high school wood shop teacher will confirm, specific tools are designed for specific uses and do not function properly outside their intended use. Using a boom whose purpose is to lift a manned basket into position for the purpose of guiding a roll of conductor wire to it's anchor point is a little like using a pair of pliers to drive a nail. It may work, but it is both inefficient and hazardous. Companies should instruct their employees against misuse of tools and, particularly in instances such as this, should strongly enforce company rules prohibiting misuse of equipment and tools where convenience overshadows safety.

FATAL ACCIDENT CIRCUMSTANCES AND EPIDEMIOLOGY (Wyoming FACE) PROJECT

The National Institute for Occupational Safety and Health (NIOSH), Division of Safety Research (DSR), performs Fatal Accident Circumstances and Epidemiology (Wyoming FACE) investigations when a participating state reports an occupational fatality and requests technical assistance. The goal of these evaluations is to prevent fatal work injuries in the future by studying the working environment, the worker, the task the worker was performing, the tools the worker was using, the energy exchange resulting in fatal injury, and the role of management in controlling how these factors interact.

States participating in this study include: Kentucky, Maryland, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia.

NIOSH Funded/State-based Wyoming FACE Projects providing surveillance and intervention capabilities to show a measurable reduction in workplace fatalities include: Alaska, California, Colorado, Georgia, Indiana, Iowa, Kentucky, Massachusetts, Maryland, Minnesota, Missouri, Nebraska, New Jersey, Wisconsin and Wyoming.

Additional information regarding this report is available from:

Wyoming Occupational Fatality Analysis Program
522 Hathaway Building - 2300 Capitol Avenue
Cheyenne, WY 82002
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Please use information listed on the Contact Sheet on the NIOSH FACE web site to contact [In-house FACE program personnel](#) regarding In-house FACE reports and to gain assistance when State-FACE program personnel cannot be reached.