



The National Institute for Occupational Safety and Health (NIOSH)

Promoting productive workplaces
through safety and health research



Truck Driver Electrocuted while Unloading Concrete Blocks in North Carolina

FACE 85-19

Introduction

The National Institute for Occupational Safety and Health (NIOSH), Division of Safety Research (DSR), is currently conducting the Fatal Accident Circumstances and Epidemiology (FACE) project, which is focusing primarily upon selected electrically-related and confined space fatalities. By scientifically collecting data from a sample of fatal accidents, it will be possible to identify and rank factors which influence the risk of fatal injury for selected employees.

The accident occurred on April 30, 1985, at 2:45 p.m. as concrete blocks were being unloaded at a building supply mart. The manager of the building supply mart walked outside the store and found the delivery driver on the ground. The Emergency Rescue Squad was called and transported the driver to a local hospital where he was pronounced dead. It was first believed that the driver had suffered a heart attack. However, an autopsy determined the cause of death as electrocution. Preliminary survey of the accident site revealed that the truck crane, which was used to unload the blocks, was approximately 12-18" from a 9000 volt power line.

Contacts/Activities

The North Carolina Department of Labor, Division of Occupational Health and Safety, requested technical assistance from NIOSH/DSR and this case has been included in the Fatal Accident Circumstances and Epidemiology (FACE) Project. On May 6 and 7, 1985, the DSR research team which consisted of a research industrial hygienist and a safety specialist visited the site of the accident, met with the employer and representatives of the North Carolina OSHA Office, and conducted comparison worker interviews. Interviews were also conducted with the sheriff's department officials that responded to the accident.

Synopsis of Events

The victim was employed by a family owned block manufacturing company that has 12 full time employees. The company manufactures concrete and cinder building blocks. The blocks (dependent upon size) are secured in lots of 72 or 96 per bundle by metal straps.

On the afternoon of the accident, the victim had two deliveries to make, one to a building supply mart (four bundles) and one bundle to a construction site. The victim arrived at the building supply mart at 2:45 p.m. and proceeded to unload the bundles of blocks. At 3:20 p.m. the store manager noticed the delivery truck was still there and the engine was running.

The manager went out to check on the delivery and found the driver lying on the ground and unresponsive. The manager called for the emergency squad and, while awaiting their arrival, administered CPR with the assistance of a nurse who was in the store at the time of the accident. The victim was transported to a local hospital where he was pronounced dead-on-arrival.

Since there were no eye witnesses to the fatal accident, the accident scenario that follows was developed from interviews conducted with the law enforcement officials that investigated the accident, owner and employees of the block manufacturing company, investigation of the accident site, and inspection of the truck used to deliver the blocks.

The victim arrived at the building supply mart at 2:45 p.m. and proceeded to unload the bundles of blocks (approximately 2000 pounds each) with a crane that is mounted on the truck bed. The victim did not use the right outrigger that would have prevented the truck from tipping while being unloaded. The left outrigger was missing. The last bundle of blocks was being unloaded and the tip of the crane was approximately 12 inches from a 9000 volt power line (which was approximately 16' vertically from the ground). While attempting to swing and guide the forks with his left hand and holding the control pendant with his right hand, the truck tipped to the right, allowing the boom to contact the 9000 volt line, electrocuting him.

Conclusions/Recommendations

Recommendation #1: Employers should enforce existing regulations concerning crane operations.

Discussion: Current OSHA standards 1926.550 (a)(15) and 1910.180 (j) require that the minimum clearance between electrical lines rated 50 kV or below and any part of the crane or load shall be ten feet, unless the electrical lines have been "deenergized and visibly grounded" at the point of work or physical contact between the lines, equipment, or machines is "prevented" by the erection of insulating barriers which cannot be part of the crane. The crane operator/delivery driver did not comply with these requirements.

Recommendation #2: Employers should provide adequate training to employees (delivery drivers) in the recognition appreciation, and avoidance of safety hazards and should assure that employees are proficient in assigned tasks.

Discussion: Adequately trained employees (delivery drivers) should have recognized the hazards associated with this task and could have taken measures to prevent the accident. The driver was aware of the location of the power line (because of reported problems in the past) and could have unloaded the blocks in a location that did not present an electrical hazard. The driver was also remiss in not using the outrigger on the truck to prevent it from tipping when the loaded crane caused an imbalance.

Recommendation #3: Employers should develop written safety policies and procedures and these policies and procedures should be enforced.

Discussion: The employer should develop written safety policies and procedures that clearly state what is expected within the company. These policies and procedures should, in this instance, cover the following: required tasks of each employee and the proper method for compliance, loading and unloading techniques required for delivery drivers or yard operators, proper use of equipment and the reason for proper use, and procedures to be followed when equipment is not in proper repair and could present a safety hazard.

[Return to In-house FACE reports](#)

Last Reviewed: November 18, 2015

Was this page helpful?

Yes

Partly

No