



The National Institute for Occupational Safety and Health (NIOSH)

Promoting productive workplaces
through safety and health research



Brick Worker Electrocuted in Georgia

FACE 85-37

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 electrical-related and confined space-related fatalities. By scientifically collecting data from a sample of fatal accidents, it will be possible to identify and rank factors that influence the risk of fatal injuries for selected employees.

An employee for a brick sales and delivery company was electrocuted when the boom on a truck-mounted crane he was operating contacted a 7200 volt power line.

Contacts/Activities:

A NIOSH staff member notified DSR of an electrical-related fatality that occurred near his home. The Georgia Department of Human Resources was notified and they requested technical assistance. This case has been included in the FACE Project. On August 13 and 14, 1985, a DSR occupational health nurse conducted a site visit and met with employer representatives, the District Environmental Health Specialist, the County Sheriff, and the County Coroner.

Overview of the Employer's Safety Program:

The employer is a brick sales and delivery company that has been in business for ten years. The company employs four full-time drivers and nine other employees.

All drivers must have a Class-V driver's license and complete at least one week of on-the-job training. The company has no written safety program, but safety is considered to be very important by company management. On rainy days and during slow periods, the drivers meet to discuss problem and to recommend solutions. The safety aspects of the work are considered at this time.

Synopsis of Events:

In the process of widening a portion of the interstate highway between two major cities, a series of manholes were to be constructed. The land contours required that these manholes be of various sizes; therefore, the contractor decided to build each manhole out of bricks, rather than buying them in a standard size. A load of bricks had been previously delivered to the

accident site (near the interstate frontage road). The first load of bricks was unloaded using a fork-lift device mounted on the delivery truck.

On the morning of the accident the driver of the company's only truck-mounted crane with a raising boom delivered another load of bricks to the contractor. He parked in approximately the same position as the previous delivery truck. After turning on the sixteen-horsepower motor that ran the crane, the driver picked up the pendant controller, and inadvertently raised the boom into the 7200 volt power line, which was directly over the truck. He was electrocuted and collapsed on the ground near the truck.

The Sheriff's Department was called by workers at the site. The Sheriff responded, followed by the emergency squad and the County Coroner, who pronounced the driver dead. Upon arrival, the Sheriff contacted the power company and kept everyone (including emergency squad personnel) away from the body until the power company confirmed that the power was off. The victim had burns on his hands and chest resulting from his contact with the controller. Also, he had an exit wound on his back. Sixteen of the eighteen steel-belted truck tires were blown out by the surge of electricity.

Cause of Death:

Coroner's report not available at this time.

Recommendations/Discussion

Recommendation #1: The employer should develop methods to increase driver awareness of job site hazards.

Discussion: Since drivers work independently, it is difficult for an employer to identify all hazards to which a driver will be exposed. Because of this it is extremely important that employers take every opportunity to make drivers aware of potential hazards. Safety training, promotion, periodic safety meetings, warning labels on the dash of a vehicle and/or at the boom controls, checklists, etc. can all be used to increase driver awareness. The victim in this fatality was an experienced driver. This fact reinforces the need to continually promote safety awareness to all drivers and highlights the need for employers to enforce safety requirements (i.e., disciplinary action, etc.).

Recommendation #2: Employers should enforce existing regulations concerning crane operations.

Discussion: Standards such as OSHA's 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 de-energized 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.

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