The National Institute for Occupational Safety and Health (NIOSH)

Promoting productive workplaces through safety and health research

Truck Driver Electrocuted in North Carolina

FACE 87-54

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. The purpose of the FACE program is to identify and rank factors that influence the risk of fatal injuries for selected employees.

On April 14, 1987, a 32-year-old truck driver was electrocuted when he raised the bed of the dump truck he was operating into a 12 kV energized power line.

Contacts/Activities:

Officials of the Occupational Safety and Health Program for the State of North Carolina notified DSR concerning this fatality and requested technical assistance. This case has been included in the FACE Project. On July 8, 1987, the DSR research team (two safety engineers) conducted a site visit, met with employer representatives, interviewed comparison workers, interviewed a surrogate of the victim, and photographed the accident site.

Overview of Employer's Safety Program:

The employer is a small trucking company that specializes in hauling farm animals. The company has one self-propelled dump truck and employs eight workers.

The employer does not have a written safety program and relies heavily upon the common sense of his employees to work safely. Drivers must have a Class A driver's license from the state of North Carolina.

Synopsis of Events:

On April 14, 1987, a truck driver (the victim), who operated a 60,000 pound self-propelled hydraulic trailer, was to deliver approximately ten loads of lime to a farm supply company. The victim was hauling the lime from a local railhead to the supply company site and was instructed to dump the lime on an existing storage pile. Because of use over time, the storage pile had spread out and been expanded, so that a portion of the area being used for storage was directly under three 12 kV power lines. The power lines ran perpendicular to the road in front of the farm supply company.

The truck driver dumped the first load of lime at approximately a 45º angle to the road. At approximately 11:25 a.m. when the truck driver was delivering the second load of lime, he pulled into the storage area and parked the truck and trailer perpendicular to the road. The truck was approximately six inches under the power line closest to the farm supply company building. The driver, standing on the opposite side of the trailer from the power line, was operating the lever which controlled the bed of the dump truck. As he was dumping the lime, the aluminum stop (a short rod mounted on the bed of the trailer to limit movement of the canvas tarp covering the load) contacted the power line. The driver completed a path to ground and was electrocuted.

The power line was burned into two parts at the point of contact, fell into the trailer bed, and "danced" along the tail gate, electrically energizing the truck. An employee of the farm supply company, who was standing at the back of the truck when the accident occurred, notified the personnel in the farm supply building. Fire department and municipal electrical personnel were notified. Employees of the farm supply company unsuccessfully attempted to push/pull the victim away from the energized truck using broom handles. The victim was in contact with the energized truck for approximately 30 minutes, until the power line could be de-energized by municipal electrical personnel. The victim was severely burned and cardiopulmonary resuscitation (CPR) was not attempted. The victim had been restricted to driving locally because the employer stated that he was "accident prone." He had been fired by this same employer previously for driving "under the influence."

Cause of Death:

The cause of death was "electrocution."

Recommendations/Discussion:

Recommendation #1: The storage area or the power lines should be moved to eliminate the hazard associated with the overhead power lines.

Discussion: The storage area should be free of all recognized hazards, including the presence of overhead power lines. The exact same conditions were present at the accident site on the day of the investigation as on the day of the accident. No intervention strategy has been implemented to preclude a recurrence of this accident.

Recommendation #2: The employer should implement a safety program that addresses the hazards associated with operating a dump truck (i.e., overhead power lines, etc.).

Discussion: Safety must be emphasized on a daily basis if employees are to follow safe work practices. Informal safety discussions, sometimes referred to as tailgate meetings, tailored to the hazards associated with operating a dump truck should be conducted periodically.

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Last Reviewed: November 18, 2015