

FACE Investigation # 90C0042

SUBJECT: Dairy Farmer Electrocuted when the Grain Auger He was Relocating Contacts 7200 Volt Power Line in Colorado.

SUMMARY:

A male, age 51, dairy farm owner was electrocuted when the grain auger he was moving came into contact with a 7200 volt power line.

The victim was relocating a 41 foot grain auger from one storage bin to another when the elevated end contacted the overhead service line. The victim was pronounced dead at a local hospital.

The Colorado Department of Health investigator concluded that, to prevent future similar occurrences, employers should:

- * survey the work site to identify hazards, especially those posed by the locations of overhead electrical lines. All employees should then be informed of the possible hazards and encouraged to report any unsafe work conditions at any work site.
- * lower the grain auger to a horizontal position prior to movement.
- * inspect equipment prior to usage to determine any faulty components and repair any unserviceable items prior to utilization.
- * affix safety signs onto the equipment to warn the user of potential hazards of moving the equipment in an upright position.
- * provide and require the use of personal protective equipment appropriate to the task when all feasible methods of hazard removal have failed.

INTRODUCTION:

On August 9, 1990 a family owned dairy farm was the site of a fatal electrocution.

A routine screening of state death certificates by the Colorado Department of Health (CDH) for work related fatalities prompted the investigation of this fatal injury. The farm owners were contacted and reports were obtained from the local sheriffs department, ambulance service, county coroner, and hospital. Members of the victim's family were interviewed and photographs were taken at the site of the incident.

The victim in this incident was an independent dairy farm owner who had operated this family owned farm for over 31 years and employed 4 workers including family members. The company lacks a written safety policy or a designated full-time safety officer. Formal training is not conducted for employees by the company.

INVESTIGATION:

The victim was attempting to move a 41-foot grain auger from one storage bin to an adjacent bin. The auger was mounted on inflatable-type car tires and elevation of the discharge end is controlled by a hand operated crank attached to a steel pulley system. One tire was flat and the auger was in the fully raised position. The victim was working alone and when he attempted to pull the auger away from the first storage bin it pivoted on the flat tire and swung into the overhead power line. Contact with the power line caused the auger to become energized and the victim became the path to ground for the electrical charge. Members of the family stated that they had been repeatedly cautioned by the victim to lower the auger prior to movement due to the proximity of the power line.

CAUSE OF DEATH:

The cause of death was determined by autopsy to be electrocution.

RECOMMENDATIONS/DISCUSSION:

Recommendation #1: On a regular basis employers should conduct a job site survey to identify potential hazards, implement appropriate control measures, and provide subsequent training to employees that specifically addresses all identified site hazards.

Discussion: The location of the uninsulated power line was a known hazard that the victim had informed others about but apparently disregarded himself. The relocation of the power line would reduce the possibility of inadvertent contact.

Recommendation #2: Lower the auger to a horizontal position prior to movement.

Discussion: Grain augers pose life threatening hazards when moved in an elevated position, both from inadvertent contact with electrical lines and the possibility of tipping over.

Recommendation #3: Maintain equipment in a safe operating condition.

Discussion: The failure to repair the flat tire on the auger contributed to the possibility of a hazardous event taking place. The flat tire inhibited smooth ready movement of the auger and caused the unit to pivot unexpectedly.

Recommendation #4: Affix safety signs to equipment to warn users of the hazards involved when moving equipment in an elevated position.

Discussion: The use of an appropriate safety sign similar to that provided in the NIOSH Alert "Preventing Grain Auger Electrocutions in this incident could have served to remind the victim of the potential hazard that existed.

REFERENCE

(1) NIOSH Alert, Preventing Grain Auger Electrocutions, July, 1986, DHHS (NIOSH) Publication No. 86-119. Available from NIOSH Publications Office, 4676 Columbia Parkway, Cincinnati, Ohio 45226, (513) 533-8287.

Lyle E. McKenzie
Chief Investigator/Industrial Hygienist
Environmental Epidemiology Division
Occupational Epidemiology Program

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