

Date: 28 November 1994

Subject: Retiree is Killed When Tractor Overturns

SUMMARY

A 61-year-old retiree was crushed to death when the tractor he was operating turned over on him. At 4:30 pm, the victim was bush-hogging a pasture on his farm, driving a tractor pulling a five-foot-wide, three-point hitch rotary bush-hog. The tractor was not equipped with a Roll Over Protective Structure (ROPS) or a seat belt. Mowing the outer perimeter of the pasture, the victim was on the first pass outlining the field. An eroded ravine forced the victim to go up the hill along the edge of the rose-briar-filled 18-foot-wide ditch. The left front and rear tractor wheels began sliding into the ravine, causing the victim to lose control. As the tractor continued over the edge, it rolled over into the ditch and onto the victim. The victim was pinned between the tire, fender and tractor seat. He was discovered at 7:15 pm by his brother-in-law, and pronounced dead at 8:55 pm by the deputy coroner.

In order to prevent similar occurrences in the future, the FACE investigator concluded that:

- Tractors should be retrofitted with Roll Over Protective Structures and seatbelts.
- Safety professionals should offer training for parttime farmers.

Additionally, county officials should initiate a 911 emergency calling service.

INTRODUCTION

On 7 October 1994, a 61-year-old male retiree was killed while operating farm equipment. On October 10, the FACE investigator read of the incident in the newspaper. An investigation was immediately initiated. The FACE investigator traveled to the scene on November 2, 1994, and again on November 9 to continue the investigation. The deputy coroner who handled the case was interviewed and accompanied the investigator to the scene. Photographs and measurements were taken while the deputy coroner described the circumstances following the incident. The coroner's report, toxicology report, and police report were obtained. Interviews were conducted with emergency medical service (EMS) personnel and the victim's brother-in-law. An equipment sales representative was interviewed by phone.

In 1987 the victim retired from a major communications company in the Chicago area, where he had worked as an engineer in research and development. In 1990 he married a woman who owned the 150-acre western Kentucky farm where the incident occurred. The victim and his wife lived in town; tenant farmers were responsible for the day-to-day maintenance of the property, which was leased out as pasture for cattle. The victim's level of training and experience on the equipment was minimal, according to his brother-in-law. His health was reasonably good after suffering a stroke some years ago. Prior injury history is not known.

INVESTIGATION

The victim was a 61-year-old male, in fair health. He was 6'1" tall, and weighed approximately 200 pounds. After retirement from his career in the communications industry, he had purchased this farm about three years prior to the incident. On the afternoon of the incident he was "laying out the land" - bush-hogging around the perimeter of a particular area. He was last seen about 1:00 pm as he drove the tractor toward the pasture.

The tractor, manufactured in the mid-1970s, was a Massey-Ferguson 135 equipped with a three-point hitch bush-hog. It was not equipped with a ROPS or a seat belt. It was in good condition for a tractor of this age.

Since there were no witnesses to this incident, the events leading up to it were reconstructed on the basis of evidence at the scene. It appeared that the victim was attempting to cut an area of pasture parallel to a steep ravine, when a rear tire of the tractor sank into loose soil, causing the tractor to overturn and pin him underneath it. He was found by his brother-in-law at approximately 7:15 pm, and was pronounced dead by the deputy coroner at 8:55 pm; time of death was estimated to be 6:45 pm.

CAUSE OF DEATH

The deputy coroner listed the cause of death as severe head and neck injuries.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Tractor owners and operators should contact their county extension agent, local equipment dealer or equipment manufacturer to see if retro-fit rollover protection and operator restraint systems are available for their equipment.

Discussion #1: The tractor in this incident, manufactured in the mid-1970s, was not equipped with a ROPS or an operator restraint system, which protect the operator in the event of a rollover. ROPS first became available as optional equipment on farm tractors in 1971. These safety features were not required on tractors until 1976, when OSHA Standard 29CFR 1928.51 went into effect. This standard required employers to provide ROPS and seat belts for all employee-operated tractors manufactured after October 25, 1976. However, this standard does not apply to family farms or farms employing fewer than 11 employees. Since 1985, as a result of voluntary agreements by tractor manufacturers, all new tractors sold in the US have been equipped with ROPS and seat belts (MMWR Jan.29, 1993). For this 1970s-model tractor, retro-fit ROPS and operator restraint systems are available. Tractor owners should contact dealers, manufacturers or county extension agents for information on sources of retro-fit ROPS and operator restraint systems.

Recommendation #1: Safety professionals should offer training for parttime farmers.

Discussion #1: Owner-operators should be offered safety courses and materials to identify hazards, evaluate risks, and develop safe operating procedures. The information should be easily accessible to operators. This is an avenue by which county extension agents could be effective in intervention and prevention. New farmers and part-time farmers, especially, should be targeted to receive this information. Listings of new farmers could be derived from property transfer data available in county clerks' offices.

Additionally, although it would not have made a difference in this case, since 911 telephone service is universally recognized by the public as the number to call in the event of an emergency, it should be implemented countywide.

REFERENCES

Effectiveness of Roll Over Protective Structures for Preventing Injuries Associated with Agricultural

Tractors. *MMWR* 42(03); 57-59.

National Safety Council (1978). "Tractor Operation and Roll-Over Protective Structures." Occupational Safety & Health Data Sheets. I-622-Reaf. 85.

National Institute for Occupational Safety and Health (Jan 29, 1993). "NIOSH Reports on the Preventability of Tractor Rollovers." Centers for Disease Control and Prevention. DHHS (NIOSH) publication No. 93-119.