MO FACE Investigation: #95MO073

SUBJECT: Farmer Killed While Working On Square Hay Baler

SUMMARY:

On July 19, 1995, a 23-year-old farmer was killed when the tying mechanism on a square hay baler activated, causing a severe head injury. The victim was part of a four-man crew baling and stacking hay on a wagon. The victim, who was stacking hay on the wagon, noticed that the tying mechanism had stopped working and notified the operator of the tractor to stop. The operator stopped and disengaged the power-take-off (PTO). While the PTO and flywheel was still winding down the victim crawled underneath the baler and reached inside the tying mechanism to free the tangled twine. The release of the tangled twine caused the mechanism to activate, crushing the victim's head.

The MO FACE Investigator concluded that in order to prevent similar occurrences, workers should:

- ensure the PTO is disengaged, the engine on the tractor is shut off, the key is taken from the ignition, and the machine has come to a complete stop and de-energized before any repairs to the machine are made.

INTRODUCTION:

A 23-year-old farmer was killed when the tying mechanism that he was trying to dislodge on a square hay baler activated and caused a severe head injury. The victim was part of a four-man crew baling and stacking hay. He worked full-time as an equipment operator for the city special road district, and worked as a farmer as well. The victim had worked with farm equipment all of his life, and worked with a similar hay baler owned by his father. All safety labels and warnings were present on the baler and all shields were in place.

The Missouri FACE investigator was notified of the incident on July 24, 1995. On August 2, 1995 he interviewed the hay baler operator, and the fire chief who provided emergency assistance during the incident. Records obtained for this investigation include the coroner's report, ambulance run sheet, newspaper clippings, and fire department report.

INVESTIGATION:

The victim was part of a four-man crew baling and hauling hay in a field located within a small town. On Wednesday evening, July 19, the victim volunteered to help a neighbor with his hay. The men were working with a Massey Furgeson Square Baler Model 12 pulled by John Deere tractor and followed by a hay wagon. Three men worked on the hay wagon stacking hay as it came off the baler and the owner of the equipment drove the tractor and operated the machinery. As the hay baler started to tie a new bale, the victim noticed that the tying mechanism was not working properly. The victim then signaled to the operator to stop the tractor and the operator disengaged the PTO. While the PTO and flywheel was still winding down, the victim crawled underneath the left side of the baler, behind the rear wheel, in order to reach the twine which was tangled up in the tying mechanism. When the victim freed the twine, the tying mechanism activated because the machine still possessed energy from the flywheel still turning and crushed the victim's head. The operator saw what had happened, dismounted from the tractor, and pulled the victim from underneath the baler. The other two workers who were on the hay wagon went to get help. Emergency personnel arrived at

the scene and prepared the victim for life-flight helicopter evacuation to a trauma center. Upon arrival the life-flight emergency staff evaluated the victims condition, the victim was pronounced dead.

CAUSE OF DEATH:

Massive Head Injuries

RECOMMENDATIONS AND DISCUSSION:

Recommendation #1: Workers should ensure the PTO is disengaged, the engine on the tractor is shut off, the key is taken from the ignition, and the machine has come to a complete stop and de-energized before dismounting to make any repairs or adjustments to the machinery.

Discussion: In this incident, the operator of the tractor did disengage the PTO, but the victim did not allow enough time for the flywheel and machinery to wind down and come to a complete stop. There was still enough energy from the turning flywheel to cycle the tyer and fatally injure the victim.

Agriculture continues to be the leading industry for occupational fatalities and injuries in Missouri. Most of these deaths and injuries come from working with farm machinery. Tractor rollover is the leading cause of farm-worker fatalities, followed by incidents involving farm machinery.

If you or someone you know works in agriculture or on a farm, remember and remind them to practice safety. Always shut the equipment off and wait for the machinery to completely stop, and all moving parts are motionless before attempting any adjustments, maintenance, or repairs.

The Missouri Department of Health, in co-operation with the National Institute for Occupational Safety and Health (NIOSH), is conducting a research project on work-related fatalities in Missouri. The goal of this project, known as the Missouri Occupational Fatality Assessment and Control Evaluation **(MO FACE)**, is to show a measurable reduction in traumatic occupational fatalities in the State of Missouri. This goal is being met by identifying causal and risk factors that contribute to work-related fatalities. Identifying these factors will enable more effective intervention strategies to be developed and implemented by employers and employees. This project does not determine fault or legal liability associated with a fatal incident or with current regulations. All **MO FACE** data will be reported to **NIOSH** for trend analysis on a national basis. This will help **NIOSH** provide employers with effective recommendations for injury prevention. All personal/company identifiers are removed from all reports sent to **NIOSH** to protect the confidentiality of those who voluntarily participate with the program.

SIGNATURES:

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