

DATE: August 28, 1997

FROM: Minnesota Fatality Assessment and Control Evaluation (MN FACE) Program
Minnesota Department of Health

SUBJECT: MN FACE Investigation 97MN011
Farmer Dies From Burn Injuries After Tractor He was Driving Caught Fire

SUMMARY

An 87-year-old farmer (victim) died of burns he received when the tractor he was driving caught fire. On the day of the incident, the victim drove a farm tractor on a public roadway pulling an empty grain wagon. The tractor was equipped with a vinyl heat shroud designed to partially shelter the tractor operator from outdoor environmental conditions. Apparently as he drove the tractor, the left brake started binding, overheated and caused the vinyl shroud to begin to smolder. The victim turned left and began driving east into a moderate wind that was blowing toward the west. While he drove into the wind, the vinyl shroud burst into flames that spread to the victim's clothing. The victim slowed the tractor and drove it into the ditch on the south side of the road where he brought it to a stop. He got off of the tractor and extinguished the flames from his clothing by rolling in the grass. Due to the extent of the burns on his body, he appeared to have collapsed after extinguishing the flames and was discovered a short time later by a passing motorist. The motorist went to a nearby farm and called emergency personnel. They arrived shortly after being notified and pronounced the victim dead at the scene. MN FACE investigators concluded that to reduce the likelihood of similar occurrences, the following guidelines should be followed:

- all equipment should be maintained in good operating condition.

INTRODUCTION

On March 20, 1997, MN FACE investigators were notified of a farm work-related fatality that occurred on November 13, 1996. The county sheriff's department was contacted and releasable information obtained. Information obtained included a copy of their report of the incident and copies of their photos of the incident site. A site investigation was not conducted by MN FACE investigators.

During MN FACE investigations, incident information is obtained from a variety of sources such as law enforcement agencies, county coroners and medical examiners, employers, coworkers and family members.

INVESTIGATION

On the day of the incident, the victim drove a 30-35 year old farm tractor on a public roadway pulling an empty grain wagon. The tractor was equipped with a vinyl heat shroud designed to partially shelter the tractor operator from outdoor environmental conditions. The shroud consisted of a plastic windshield, a three sided vinyl canopy and vinyl panels that were attached to the tractor along each side of the engine. The canopy was open to the back of the tractor and enabled the operator to get on or off of it from the rear. The side panels and canopy provided a slightly controlled work environment for the operator by directing radiated heat from the engine and radiator to the operators location.

The victim drove the tractor south on a public road until he reached an intersection where traffic had to turn either left or right. Apparently as he drove the tractor, the left brake started binding, overheated and caused the vinyl shroud to begin to smolder. The victim turned left and began driving east into a moderate wind that was blowing toward the west. While he drove into the wind, the vinyl shroud burst into flames that spread to the victim's clothing. The victim slowed the tractor and for unknown reasons drove it into the ditch on the south side of the road where he brought it to a stop. He got off of the tractor and extinguished the flames from his clothing by rolling in the grass. Due to the extent of the burns on his body, he appeared to have collapsed after extinguishing the flames and was discovered a short time later by a passing motorist. The motorist went to a nearby farm and called emergency personnel. They arrived shortly after being notified and pronounced the victim dead at the scene.

CAUSE OF DEATH

The cause of death listed on the death certificate was third degree burns over ninety percent of the body.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: All equipment should be maintained in good operating condition.

Discussion: Farm equipment owners should perform regularly scheduled maintenance on all equipment to ensure that it is maintained in good operating condition. Failure to maintain equipment in proper operating condition can result in hazardous situations that may increase the risk of workers being injured. In this incident, one of the tractor's brakes apparently did not completely release and caused the brake to overheat as the operator drove the tractor. The overheated brake apparently caused the plastic heat shroud to begin to smoulder and eventually catch fire when the victim turned a corner and drove into the wind. The flames spread to the operators clothing and although he was able to stop the tractor he was not able to extinguish the flames before being fatally injured. If the tractor brakes had been maintained in proper working condition, the plastic heat shroud probably would not have caught fire and this fatality might have been prevented.

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