DATE: January 24, 1997

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

SUBJECT: MN FACE Investigation 96MN08401
Construction Worker Dies After Being Run Over By Bulldozer He Had Been Operating

SUMMARY

A 54-year-old construction worker died of injuries sustained when the bulldozer he had been operating ran over him. The construction company the victim worked for had contracted to make a snowmobile trail through a wooded area. Prior to the occurrence of the incident, the victim was using the bulldozer to clear the trail. During the clearing process, the bulldozer stalled and was restarted by the victim. The victim was standing on one of the bulldozer's tracks while he restarted the machine with a screwdriver. The bulldozer started and quickly took off in reverse. The victim attempted to reach up and hold onto the bulldozer but was unable to. The victim fell off the track of the bulldozer and was run over by it. A coworker of the victim witnessed the incident and placed a call to emergency personnel who responded and pronounced the victim dead at the scene.

MN FACE investigators concluded that, in order to reduce the likelihood of similar occurrences, the following guidelines should be followed:

- employers should ensure that equipment is always maintained in the proper working condition;
- employers should ensure that workers never use an alternate means of operating equipment; and
- design, develop, and implement a comprehensive safety program.

INTRODUCTION

On December 1, 1996, MN FACE investigators were notified of a construction work-related

fatality that occurred on November 29, 1996. The county sheriff's department was contacted and a releasable copy of their report of the incident was obtained. An investigation of the incident site 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 afternoon of the incident, the victim was operating a bulldozer in a wooded area. He had been clearing an area for an extension of a snowmobile trail. On the morning of the incident, the victim told one of his coworkers that the engine on the bulldozer the victim was operating was giving off smoke. The victim and his coworker discovered that the fuel line on the bulldozer was leaking.
They left the wooded area and went to an auto parts store in the a nearby town and purchased a fuel line for the bulldozer. They arrived back at the worksite late in the morning and installed the new fuel line on the bulldozer which started operating again.

Shortly after the new fuel line was installed, the bulldozer stalled while the victim was backing up. The victim then went to a trap door, located on the right side of the engine compartment of the bulldozer, to access the solenoid points. He restarted the bulldozer by placing a screw driver across the solenoid points. The victim's coworker was approximately 200 feet away when he heard the bulldozer's engine roar and saw the bulldozer take off in reverse. The victim was standing on top of the track on the right side of the bulldozer when it took off. He attempted to reach up to grab onto the bulldozer, but was unable to. The victim had nothing to hold onto when the bulldozer took off so he fell off the track and was run over.

The coworker lost sight of the victim shortly after the bulldozer took off. The coworker ran toward the bulldozer and saw the victim's leg sticking out from under it. The bulldozer continued to travel backward and the victim's body came out from underneath the track but his head was caught between the bulldozer blade and the ground. As the bulldozer continued backward the blade was jarred upward and the victim's head was released. The bulldozer stopped moving when it ran into a clump of trees. The coworker ran to the bulldozer and turned off the ignition. The coworker then ran to the victim and attempted to find the victim's portable radio, but was unable to. He then ran to his truck and drove out of the wooded area to a private home where he placed a 911 call to emergency personnel. Emergency personnel arrived a short time later and pronounced the victim

dead at the scene.

CAUSE OF DEATH

The cause of death listed on the death certificate was severe head trauma.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Employers should ensure that equipment is always maintained in the proper working condition.
Discussion: Employers should ensure that equipment is regularly inspected and maintained. Upon inspection, if equipment is found to need repair, the equipment should be rendered inoperable until it is repaired. In this incident, if the bulldozer had been regularly inspected and maintained, this fatality may have been prevented.

Recommendation #2: Employers should ensure that workers never use an alternate means of operating equipment.
Discussion: Employers should ensure that workers immediately stop using and report equipment that is not working properly. Employers should have a policy that workers immediately report equipment that is not working properly, rather than using an alternate means to operate it. In this incident, if the bulldozer had been immediately reported as not starting properly and an alternate means had not been used to start it, this fatality may have been prevented.

Recommendation #3: Employers should design, develop, and implement a comprehensive safety program.
Discussion: Employers should ensure that all employees are trained to recognize and avoid hazardous work conditions. A comprehensive safety program should address all aspects of safety related to specific tasks that employees are required to perform. OSHA Standard 1926.21(b)(2) requires employers to "instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury." Safety rules, regulations, and procedures should include the recognition and elimination of hazards associated with tasks performed by employees.

REFERENCES

1.Office of the Federal Register: Code of Federal Regulations, Labor, 29 CFR Part

1926.21 (b) (2), U.S. Department of Labor, Occupational Safety and Health

Administration, Washington, D.C., July 1, 1994.

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