DATE: January 27, 1997

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

SUBJECT: MN FACE Investigation 96MN09201
Conveyor Operator Dies After Being Runover By A Belly Dump Trailer

SUMMARY

A 33-year-old conveyor operator died of injuries he sustained when a belly dump trailer that was preparing to unload gravel ran over him. On the day of the incident, the victim had been operating the generator of the conveyor system that moved gravel that had been dumped from belly dump trailers. The truck driver involved in the incident was having trouble opening the gates of the belly dump trailer. While the truck was stopped in the unloading position, the victim went under the trailer to manually open the belly dump doors. The driver was not aware that the victim was under the trailer area. The driver pulled away from the unloading platform and the victim was run over by the rear dual tires located on the passenger side of the trailer. A coworker placed a 911 call to emergency rescue personnel who arrived and pronounced the victim dead. MN FACE investigators concluded that, in order to reduce the likelihood of similar occurrences, the following guidelines should be followed:

- employers should ensure that belly dump trailers are equipped with a manual gate release lever located on the side of the trailer rather than underneath the trailer;

- employers should ensure that employees only perform tasks which they have been trained to do; and

- employers should design, develop, and implement a comprehensive safety program.

INTRODUCTION

On December 23, 1996, MN FACE investigators were notified of a work-related fatal incident

that occurred on October 31, 1996. An interview with the employer's director of safety was conducted by a MN FACE investigator on January 13,1997. 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.

The victim worked for a road construction contracting company. The company has been in business for 29 years and employs 300 workers. The employer has a safety program and a safety director who dedicates 100% of his work time to safety. The victim had worked for the company for 4 years and at the incident site for two weeks. Thirteen other employees were working at the site at the time of the incident. This was the first work-related fatality at the company.

INVESTIGATION

The victim had been working at a job site where gravel was being dumped by belly dump truck trailers for a highway construction project. The trucks drove up a ramp composed of sand and gravel to an unloading platform. While on the platform, the gates of the belly dump trailers were opened and the loads emptied into a grating system on a conveyor belt. The conveyor belt system stacked the gravel into piles that would be used for the highway construction project.

On the day of the incident, the victim was operating the generator of the conveyor system. The victim spoke with the driver of the first truck of the day that was going to unload his trailer. The truck driver told the victim that he was going to pour alcohol in the lines that operated the unloading gates of the belly dump trailer. He did this because it was cold outside and the lines had a tendency to freeze up in the cold weather.

After pouring alcohol in the lines, the truck driver pulled up onto the ramp and twice attempted to open the gates of the belly dump from inside the truck's cab but was unsuccessful. The victim saw that the gates of the belly dump trailer were not opening and ran up the side hill of the ramp which was outside of the truck driver's view. The victim went to an area under the belly dump trailer where a manual lever was located that could be used to open the gates. The truck driver noticed in his rear view mirror that other trucks had pulled up behind him. In order to get out of the way of the other trucks, the driver started to drive down the ramp to an area where a mechanic could work on his belly dump trailer. The driver

of the truck immediately behind the truck involved in the incident saw the victim go under the belly dump trailer and attempted to contact the truck driver by radio. The driver of the truck involved in the incident pulled ahead before the driver behind him was able to contact him. At the time that the truck started to pull ahead the victim was standing under the belly dump trailer and was run over by the dual rear wheels on the passenger side of the trailer. Coworkers of the victim placed a 911 call to emergency personnel who responded 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 transected thoracic aorta as a result of a pedestrian-dump truck accident.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Employers should ensure that belly dump trailers are equipped with a manual gate release lever located on the side of the trailer rather than underneath the trailer.

Discussion: Belly dump trailers that are currently being manufactured have the manual gate release lever located on the side of the belly dump trailer rather than underneath it. The companies that manufacture belly dump trailers should provide employers/truck owners with the materials necessary to retrofit these trailers with manual release levers located on the side of the trailers. At the present time employers or truck owners are not allowed to modify the location of the manual release levers. If the belly dump trailer involved in this incident would have had the manual gate release lever located on the side of the trailer rather than underneath the trailer, this fatality may have been prevented.

Recommendation #2: Employers should ensure that employees only perform tasks which they have been trained to do.

Discussion: Employees must be trained in the safety aspects of any task that they are required to perform. Employers should make sure that employees do not perform tasks that they have not been properly trained to perform. In this incident the victim was performing a task that was outside of his responsibilities. Mechanics at the company involved in this incident have been trained to communicate with truck drivers before working on any part of the truck or trailer. The trucks are also chocked or blocked before performing maintenance on them. The company is also in the process of implementing a lockout/tagout procedure for

truck maintenance.

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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