MO FACE Investigation #95MO057

SUBJECT:

County Highway Department Worker Crushed When Dump Trailer and Truck Tipped Over

SUMMARY:

On June 6, 1995, a 47-year-old county highway department worker was crushed when the dump trailer and truck he was directing tipped over onto him. The victim was part of a five-man crew installing a culvert drain across a county road. As the trailer began to dump the load of fill around the culvert drain pipe, the fill dirt on the right side remained in the bed while the fill on the left side began sliding out. This caused the trailer to be unstable and it started to tip over. The victim, who was standing at the rear of the trailer, may have seen what was happening and ran towards the truck cab along side the trailer bed. The truck, to which the trailer was connected, tipped over with the trailer, pinning the victim underneath the truck. Emergency personnel were called to the scene and extricated the victim. Shortly after the victim was freed from underneath the truck, the victim began hemorrhaging internally and died at the scene.

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

- **require employees to immediately alert the operator when loaded material in a dump trailer or truck becomes lodged within the dump bed during dumping operations;**

- **develop, implement, and enforce a comprehensive safety and health plan that includes, but is not limited to, the hazards associated with operation of heavy equipment.**

INTRODUCTION:

A 47-year-old county highway department worker was crushed when the truck and dump trailer which he was directing tipped over. The county highway department employed about 85 people. The victim had been with the department for about 11 years. No written safety and health procedures were in place for the specific task performed by the victim. The employer stated that the victim did receive training on the hazards associated with heavy equipment and hazard identification. The truck was equipped with a back-up alarm and an emergency stop button.

The Missouri FACE Investigator was notified of the incident on June 9, 1995, and contacted the employer. The investigation was initiated the employer was interviewed on June 27, 1995. Records obtained for this investigation include the coroner's report, worker's compensation claim, newspaper clipping, and trailer manufacturer specifications.

INVESTIGATION:

The victim was part of a five-man crew installing a new culvert drain pipe across a county road. On Monday, the crew removed the old culvert pipe and set the new culvert pipe into place. The next day the crew began dumping fill dirt around the new culvert pipe. The truck driver had just returned with his second load of dirt. The victim then began guiding the driver to the edge of the culvert. Once in position, the driver started to raise the dump bed. The victim was standing on the right side toward the rear of the trailer while the bed was raising. As the bed raised only the left half of the fill dumped. The uneven weight distribution on the trailer caused the trailer to tip. For reasons unknown, the victim began running parallel with the trailer as it was beginning to tip. As the trailer tipped, it brought the truck along with it. The victim reached the area around the passenger side door of the truck when the truck tipped over onto him. Emergency personnel were immediately summoned to the scene. Extrication procedures were initiated by cutting the top of the cab off and lifting the truck off the victim with a track hoe. The victim was conscious during the extrication procedures. When pressure was released, he began

hemorrhaging internally and died at the scene. The driver of the truck escaped with minor injuries.

CAUSE OF DEATH:

Traumatic Shock and Massive Hemorrhaging

RECOMMENDATIONS AND DISCUSSION:

Recommendation #1: Employers should ensure their employees are trained on properly alerting the operator when a hazard is identified with a dump trailer or dump truck.

Discussion: Employees working with heavy equipment operators may use signaling devices such as a whistle or by radio contact in order to alert the operator when a problem arises with the equipment. This allows the employee to notify the operator immediately from a safe distance.

In order to help prevent loads of material from becoming lodged, the operator should ensure the bed and the corners of the dump trailer or truck are cleaned completely after dumping each load. This ensures that the material does not accumulate within the bed contributing to the likelihood of loads not dumping from the bed properly.

Recommendation #2: Employers should develop, implement, and enforce a comprehensive safety and health plan that addresses the hazards associated with heavy equipment and takes into consideration the manufacturer's safety recommendations for operation of the equipment.

Discussion: The employer's safety and health plan should be specific for each type of heavy equipment. The plan should identify hazards such as equipment tipping over and overhead powerlines. Maintaining safe working distances and working within the line of sight of the operator are also precautions which should also be addressed. A listing of any applicable safety recommendations by the manufacturer should also be included within the plan.

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)** Program, 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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Daniel A. Stark

MO FACE Program

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Thomas D. Ray
MO FACE Program Coordinator
Chief Investigator

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Daryl Roberts
Chief
Bureau of Environmental Epidemiology