

November 13, 1998

Nebraska FACE Investigation 98NE0xx

SUBJECT:

Tractor Overturn Kills Temporary Worker

SUMMARY:

A 18-year-old physical plant helper at a community college was killed when the tractor he was operating overturned in a ditch and landed on top of him. He was crushed under the right rear wheel of the tractor. The victim was transporting a round bale of hay (approximately 1,200 pounds) that was on the back of the tractor. The tractor was not equipped with a rollover protective structure (ROPS). The victim had been driving the tractor on a paved surface and it departed the left side of the roadway and rolled over in a ditch. A coworker went looking for the victim and found him under the tractor. He called out to the victim but did not receive a response. The coworker then went back to his office (less than a half mile from the accident scene) and called 911. The victim was pronounced dead at the scene.

The Nebraska Department of Labor Investigator concluded that to prevent future similar occurrences:

- * Employers should ensure tractors are equipped with rollover protective structures (ROPS) and operator restraint systems.
- * Employers should ensure all personnel are thoroughly trained on equipment before allowing them to operate the equipment unsupervised.
- * Employers should develop, implement and enforce a comprehensive safety program that includes all employees (both permanent, part-time and temporary).

PROGRAM OBJECTIVE:

The goal of the Fatality Assessment and Control Evaluation (FACE) workplace investigation is to prevent work-related deaths or injuries in the future by a study of the working environment, the worker, the task the worker was performing, the tools the worker was using, and the role of management in controlling how these factors interact.

This report is generated and distributed **solely** for the purpose of providing current, relevant education to employers, their employees and the community on methods to prevent occupational fatalities and injuries.

INTRODUCTION:

On August 18, 1998, at approximately 4:00 p.m., an 18-year-old physical plant helper was killed when the tractor he was operating overturned. The Nebraska Department of Labor became aware of the fatality via the newspaper on August 20, 1998. The Nebraska FACE Investigator conducted a site visit on August 26, 1998. Interviews were conducted with the victim's supervisor and coworkers. Interviews were also conducted with the Sheriff's Office personnel who responded to the incident.

The college has been in business for 32 years. The victim had been employed by the college for two weeks. He was a temporary summer employee. The total number of employees for the college at the incident location is approximately 160. The college has a full-time safety manager, but he is located at a different campus. The college also has a written safety program. This was the first occupational fatality in the history of the college.

INVESTIGATION:

On the day of the incident the victim began work at 7:30 a.m. The incident occurred at approximately 4:00 p.m. while the victim was moving hay bales from one location to another. The college has some land on which they grow hay. They contract with farmers to have the hay harvested and baled and then they (the college employees) move the bales where they need them. The victim had operated smaller tractors at the college but this was the first day he had operated this tractor. The incident tractor was a 1972 Ford 5000. He received some hands-on training on the Ford

5000 earlier on the day of the incident and was operating it unsupervised at the time of the incident. When the victim did not return when expected, a coworker went looking for him. He found the victim pinned under the right rear wheel of the tractor. He yelled at the victim and did not get a response. He immediately went back to his office, which was less than a half mile away, and called 911. They responded and pronounced the victim dead at the scene. There were no witnesses to the incident.

The victim had traveled on a paved road several miles to pick up a hay bale from a field where it had been harvested and baled. The approximately 1,200 pound bale was loaded on the rear of the tractor on a three pronged attachment. After picking up the bale he traveled West on the same paved road on which he had traveled to the field. The tractor veered to the left side of the road, crossed the centerline, and traveled 150 feet in the South ditch after leaving the paved surface. The tractor rolled over, landing on its right side pinning the victim under the right rear tire.

At the time of the incident the tractor appeared to be in high gear (approximately 16-18 mph). The tractor had added weights on the front (a total of 468 pounds) to counterbalance the added weight of the bale of hay. There were no apparent defects on the tractor. Why the tractor left the road is unknown. It is possible an animal could have run in front of the tractor and the victim lost control of the tractor trying to avoid it.

CAUSE OF DEATH:

The cause of death, according to the Death Certificate, was multiple internal injuries.

RECOMMENDATIONS/DISCUSSION:

Recommendation #1: Employers should ensure tractors are equipped with rollover protective structures (ROPS) and operator restraint systems.

Discussion: The tractor involved in this incident was manufactured in 1972 and at that time rollover protective structures (ROPS) were not required. These safety features were not required on new tractors until 1976, when OSHA standard 1928.51 went into effect. Although not required on tractors manufactured before 1976, it would greatly enhance the safety of the operator to install

ROPS and seat belts on tractors manufactured before 1976. For a ROPS system to be effective a seat belt must always be used in conjunction with the ROPS. If a seat belt is not worn, the operator could be crushed by the ROPS. If a tractor is not equipped with a ROPS a seat belt should not be worn.

NOTE: In the past four years there have been more than 20 fatalities due to tractor rollovers in Nebraska. None of these tractors were equipped with a ROPS.

Recommendation #2: Employers should ensure all personnel are thoroughly trained on equipment before allowing them to operate the equipment unsupervised.

Discussion: In this case the victim had limited experience with tractors. He had only operated smaller tractors prior to the incident day and he had only operated these for two weeks. This was his first day operating the incident tractor. Recommend specific training be conducted and documented on all machinery an employee is authorized to operate.

Recommendation #3: Employers should develop, implement and enforce a comprehensive safety program that includes all employees (both permanent, part-time and temporary).

Discussion: The college has a safety training program for full-time employees however, all employees, such as the victim in this case (a temporary employee) do not receive the training. It is imperative that all employees receive all applicable safety training regarding their job. An awareness of the hazards of the workplace is equally important for all employees.

REFERENCES:

Office of the Federal Register, National Archives and Records Administration, Code of Federal Regulations, Labor, CFR 1928, Occupational Safety and Health Standards for Agriculture, Subpart C.