

Nebraska FACE Investigation 96NE009

SUBJECT:

Fall from Forklift Pallet

SUMMARY:

A 69-year-old part-time truck driver fell approximately 1½ feet from a pallet on a forklift. He had just loaded a 30-gallon drum of chemicals from a flatbed truck to the pallet. The forklift driver then backed away from the truck and lowered the pallet at the same time. When the pallet was approximately 1½ feet from the concrete floor, the victim fell and struck his head on the floor. He died twenty days later in a hospital as a result of injuries sustained.

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

- * Employers and employees must ensure unauthorized personnel do not ride on forklifts.
- * Employers should consider putting everything on a pallet which requires a forklift for handling.
- * Employers should consider implementing a spot inspection program to ensure all employees are complying with safety requirements and develop and enforce consequences for noncompliance.
- * Develop, implement and enforce a comprehensive safety program that includes, but is not limited to, training in all hazard recognition to include safe operation of forklifts.

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 April 10, 1996, at approximately 10:00 a.m., a 69-year-old part-time truck driver for a chemical company, received injuries which lead to his death 20 days later. The Nebraska Department of Labor was notified of this fatality by the company that employed the victim. Notification was made on April 30, 1996, which was the day the victim died. The Nebraska FACE investigator accompanied an OSHA investigator to the incident site and the employers workplace on May 1 and 2, 1996. Interviews were conducted with management personnel at the business location of the victim and employees at the incident site. The incident site was approximately 50 miles away from the employer's business location.

The victim's employer is a chemical company which has been in business for 20 years and employs approximately 25 personnel. This was the first fatality in the history of the company. The company where the incident occurred is an agricultural cooperative which has been in business for 8 years and employs approximately 12 personnel at the incident site. They employ a total of 59 employees at various sites in Nebraska. Both companies have a written safety program but only the cooperative has a safety manager and this individual has other duties besides safety.

The victim had worked full-time for the chemical company for 16 years and part-time for 3 years. He was working part-time at the time of the incident. The employee at the cooperative who was operating the forklift at the time of the incident had received forklift training which consisted primarily of viewing a video tape.

INVESTIGATION:

The victim, a part-time truck driver for a chemical company, was delivering agricultural chemicals to an agricultural cooperative. He was driving a flatbed truck when he arrived at the incident site. This particular truck holds four pallets (approximately 47" X 40"). The load he delivered to the cooperative that day consisted of three pallets and one 30-gallon drum not on a pallet. The victim backed the truck inside a storage building several feet to unload it. The bed of the truck was 42" high and the 30-gallon drum was too heavy to manually remove from the back of the truck. The victim told an individual at the cooperative to get a forklift and he would get a pallet. The victim placed the pallet on the concrete floor near the forklift and then he stood on the pallet. The victim asked the forklift driver to pick him and the pallet up and take them to the truck which was approximately 20 feet away. The driver picked him up and drove him to the truck. When the pallet was raised level with the truck bed, the victim moved the 30-gallon drum onto the pallet. The forklift driver then backed up, with the victim and the 30-gallon drum on the pallet, while lowering the forks at the same time. He was also turning the forklift in a 90 degree arc while backing down a 4 degree incline. When the forks were approximately 1 ½ feet from the concrete floor the victim fell from the pallet, face down, and struck his head, fracturing his skull. The forklift driver called for help and laid the victim on his back. Emergency personnel responded within about five minutes. The victim was transported to a local hospital and later transferred to a larger hospital. He suffered congestive heart failure on April 27, 1996, and was removed from life support on April 29, 1996. He died April 30, 1996, 20 days after the incident.

An inspection of the forklift involved in the incident showed basic safety features to be operating normally, to include, steering, brakes, and lights. The incident took place inside a large storage building with high ceilings and good lighting. Although two large overhead doors were open at the time of the incident, weather was not a factor. The concrete surface was smooth and dry at the time of the incident.

Why the victim fell from the pallet is unknown, however it is this investigator's opinion that the combination of different movements could have caused him to lose his balance and thus fall. The forklift was moving backwards, down a 4 degree incline, turning in a 90 degree arc, and the pallet was being lowered at the same time. This could have caused spatial disorientation.

CAUSE OF DEATH:

The cause of death as stated on the death certificate was cardiopulmonary arrest as a consequence of brain stem herniation as a consequence of accidental brain injury.

RECOMMENDATIONS/DISCUSSION:

Recommendation #1: **Employers and employees must ensure unauthorized personnel do not ride on forklifts.**

Discussion: 29CFR 1910.178(m)(3) states, "Unauthorized personnel shall not be permitted to ride on powered industrial trucks." Had the victim not been riding on the pallet this fatality could have been prevented. He could have climbed up to the bed of the truck and loaded the 30-gallon drum on the pallet and then climbed down from the truck.

Recommendation #2: **Employers should consider putting everything on a pallet, which requires a forklift for handling.**

Discussion: The truck which was being unloaded at the time of the incident had three pallets on it and one 30-gallon drum. The materials on the pallets were wrapped with plastic to prevent movement. These pallets could be easily unloaded from the truck by just the forklift driver. The 30-gallon drum was too heavy to be manually removed from the bed of the truck and therefore a forklift was used. Had this single drum been placed on a pallet and stabilized (i.e. wrapped with plastic, secured with bungee cord), there would have been no need for an individual, other than the forklift driver, to be involved in unloading it. Some of the trucks used by the chemical company have hydraulic liftgates which would have allowed the 30-gallon drum to be lowered to the floor without the aid of a forklift. The truck involved in the incident was not equipped with a hydraulic liftgate.

Recommendation #3: **Employers should consider implementing a spot inspection program to ensure all employees are complying with safety requirements and develop and enforce consequences for noncompliance.**

Discussion: To ensure safety program compliance, spot inspections by supervisors and management should be conducted regularly to verify proper procedures are being followed. Deterrent consequences should be established for noncompliance with the employer's Injury Prevention Program safety requirements. To be effective these consequences should be written as a part of an employer's Injury Prevention Program and must be enforced when violations are detected. An effective Injury Prevention Program should instill an attitude in everyone that safety will never be compromised for expediency.

Recommendation #4: Develop, implement and enforce a comprehensive safety program that includes, but is not limited to, training in all hazard recognition to include safe operation of forklifts.

Discussion: Both the forklift operator and the victim should have been aware of the hazards of riding on a forklift. Operator training for powered industrial trucks is covered in 29 CFR 1910.178(l) and states in part that, "Methods shall be devised to train operators in the safe operation of powered industrial trucks."

REFERENCES:

Office of the Federal Register, National Archives and Records Administration, Code of Federal Regulations, Labor, 29 CFR 1910.178, 1995.

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