TX laborer for a general contractor in Texas died when the personnel lift he was standing in fell over and he struck his head on a concrete floor.

Investigation # 98TX23601
Release Date: February 8, 1999

SUMMARY

A 32-year-old male laborer for a general contractor died, when his head struck a concrete floor after the personnel lift he was standing in fell over. The victim and two coworkers were dismantling metal shelving at a height of twenty feet. A personnel lift was used to lower the vertical supports. The victim and coworkers positioned the lift next to the shelves. Since the outriggers were not available, one coworker held onto the lift to steady it. The victim then climbed into the basket and raised himself up. The victim and coworkers then started to dismantle the metal shelves. While the victim held onto the shelves, the shelves suddenly twisted, causing him to lose his balance. The resulting weight shift caused the personnel lift to topple over while the victim was still in the work basket. The victim fell approximately 11feet and struck his head on the concrete floor. EMS personnel arrived at 11:57 a.m. The victim was transported to a local hospital and was immediately transferred by Care Flight to another hospital. The medical examiner pronounced him dead at 15:15 p.m.

The TX FACE Investigator concluded that to reduce the likelihood of similar occurrences, employers should:

**** Ensure employees follow the manufacturer's instructions when the personnel lift is used in the work environment.***

**** Periodically inspect equipment that is available for use by employees and remove from service that equipment which is not in good condition or missing pieces that are required for safe operation.***

**** Develop an in-depth training outline for the personnel lift including all relevant cautions stated in the operator's manual and incorporate into initial and refresher training.***

**** Develop a system of successively heavier penalties for violation of safe work practices.***

INTRODUCTION

On April 15, 1998, a 34-year-old male laborer (the victim) died when the personnel lift in which he was standing fell over and he struck his head on a concrete floor. The TX FACE project officer was made aware of this incident by the OSHA regional office. On May 19, the TWCC FACE project officer visited the incident site, interviewed the employer and photographed the personnel lift.

The employer was a general contractor that employs 30 workers, 25 of whom were in the same

occupation as the victim. The company has been in business for 15 years. At the time of the incident four employees were at the site and two were directly involved in the activity that led to the incident.

The safety program was managed by the owner. There was a written safety program, but the personnel lift was not addressed in that program. Safety meetings were conducted on an as-needed basis depending on the work to be accomplished.

New hire training was also conducted and refresher training was conducted every six months. The employer conducted task-specific training utilizing classroom and on-the-job training. The employer incorporates pre-employment physicals and drug screening when hiring new employees.

The victim had been employed for nine years. With regard to this particular task, the victim had more than two years of experience. The victim's training in this task included the use of outriggers when operating this piece of equipment.

INVESTIGATION

The victim and coworkers were part of a small team of workers who provided general maintenance and repair services at a warehouse owned by another company. They were going to dismantle metal shelving located in a warehouse. The shelves were 6 feet wide and 20 feet high.

This particular task was performed on previous occasions using a forklift with a work platform specifically designed to lift personnel. Workers would use the forklift to lower the vertical supports, which weighed approximately 150 lbs each. The forklift was nearby, but it could not be determined exactly why it was not used.

Prior to starting the task, the supervisor decided to obtain more help and to find out where the shelves were going to be relocated. He instructed the victim and two co-workers to wait for him to come back. The victim, an experienced employee who had dismantled the shelves many times before, decided not to wait until the supervisor returned. He obtained a battery-powered personnel lift that belonged to the company that owned the warehouse. (There was agreement between the two employers which allowed for the sharing of equipment.) The victim had used the personnel lift before. On each of those occasions the outriggers were not installed. Instead a coworker would hold onto the lift in order to stabilize it.

The instructions for the personnel lift had been lost, but there was a label on the mast of the personnel lift which stated: "All outriggers must be installed before using." The outriggers were not stored on the lift and the employees did not know where they were.

The victim and coworkers positioned the personnel lift at the end of the shelves. The victim climbed onto the working platform and raised himself up to a height of 11feet while a coworker steadied the lift. The victim and coworkers removed several bolts connecting the shelves together as the victim held on to the shelves. While the victim was holding onto the shelves, the shelves suddenly twisted causing the victim to lose his balance. The victim's body motion in turn caused the wheels of the personnel lift to turn sideways. Since the outriggers had not been

installed, the personnel lift toppled over. The victim fell approximately 11feet and struck his head on the concrete floor.

EMS personnel were notified at 11:52 a.m. and arrived at 11:57 a.m. The victim was immediately transported and arrived at a local hospital at 12:12 p.m. Due to the seriousness of the injury, Care Flight transported the victim to another hospital where the medical examiner pronounced him dead at 15:15 p.m.

CAUSE OF DEATH

The autopsy report stated the cause of death was from massive cranio-cerebral trauma due to fall from a forklift. (Note: The actual piece of equipment involved was not a forklift but a personnel lift as described.)

RECOMMENDATIONS/DISCUSSION

<u>Recommendation #1</u>: Employers should ensure employees follow the manufacturer's instructions when the personnel lift is used in the work environment.

Discussion: It must be made clear to all employees by supervisors and top management that all safety regulations and instructions are expected to be followed. Safety measures are part of the requirements for performing jobs.

In this incident the operating instructions were posted on the mast of the personnel lift. If the operating instructions had been followed then this incident may have been prevented.

Operating Instructions

The manual for the personnel lift included the following instructions that were specific to the task.

- study and understand the operating manual before using.
- all outriggers must be installed before using
- adjust jacks to contact floor and level base before elevating

<u>Recommendation #2</u>: The employer should periodically inspect equipment that is available for use by employees and remove from service that equipment which is not in good condition or which is missing pieces that are required for safe operation.

Discussion: Employees should be required to inspect and check equipment as part of their work procedures. Daily inspections or inspections prior to use should be accomplished. An inspection checklist should be incorporated to provide guidance on what needs to be inspected and to ensure a thorough inspection is conducted. When an item is found defective the worker should be directed to report their findings immediately to the supervisor (Grimaldi, Simonds, 1989).

Supervisors can conduct spot inspections of their departments at least once each day. Detailed observations of all operations are not necessary. If a supervisor conducts daily spot inspections

it sends a message to worker that the employer is interested in maintaining a safe work environment (Grimaldi, Simonds, 1989) .

When conducting spot inspections, violations of rules should also be noted. If a worker is found deliberately disobeying safety rules, it should be recognized immediately and the worker disciplined, if in fact it was a deliberate act (Grimaldi, Simonds, 1989). (Note: Supervisors must be careful when determining the reason a worker does not follow safety rules. The worker may not understand what the safe procedure is or think their way is better. If the worker feels their way is better, the supervisor must then determine why and either change the procedure or explain the consequences of the employee's actions.)

Recommendation #3: The employer should develop an in-depth training outline for the personnel lift including all relevant cautions stated in the operator's manual and incorporate this material into initial and refresher training.

Discussion: Some form of refresher training is necessary if workers are to continue to do their jobs efficiently and safely. It is an inescapable fact that, no matter how carefully workers are selected or how much aptitude and experience they have, as time passes, new and sometimes bad work habits are acquired. Bad work habits do not happen overnight. The deterioration is very slow and may not be noticed promptly. Supervisors should maintain frequent contact with workers in order to observe the work habits of those they supervise and then retrain when it becomes necessary (Grimaldi, Simonds, 1989).

Recommendation #4 - The employer should develop a system of successively heavier penalties for violation of safe work practices.

Discussion: Top management must send a clear message to all supervisors and workers that all safety regulations and instructions are expected to be followed. Safety regulations must be taken just as seriously as any other company directive. The message for top management should also include the fact that safety measures, written or unwritten, are part of the requirements for performing jobs (Grimaldi, Simonds, 1989).

A system of successively heavier penalties for safety violations should be part of the employers safety program (Grimaldi, Simonds, 1989). It should only be used as a last resort. Management must determine why a worker fails to follow safety rules and not immediately jump to the conclusion that the worker does not care about his safety or that of others.

An example of successively heavier penalties may take the following form: the first clear and deliberate violation may bring an official reprimand; the second, a short layoff; the third dismissal.

REFERENCES

1. Grimaldi, J.V., Simonds, R.H. Safety Management, 5th ed. Homewood, IL: Irwin 1989