

# NJ FACE INVESTIGATION REPORT



*Fatality Assessment & Control Evaluation Project*

FACE 98-NJ-053-01

June 18, 1999

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## Warehouse Worker Dies After Falling From an Order-Picker Forklift Truck

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### SUMMARY

On June 5, 1998, a 26-year-old furniture warehouse worker was fatally injured after falling 18 feet from an order-picker forklift truck. The incident occurred as the victim was moving the raised forklift truck down a narrow aisle between the warehouse racks. No one saw the incident, but apparently the forklift platform (a flat cart designed to be carried on the forks) struck the metal warehouse racks, pulling the platform off the forks. The victim then fell from the cab of the forklift, striking his head on the concrete floor. He was placed on life support and died three days later. NJ FACE investigators concluded that, to prevent similar incidents in the future, these safety guidelines should be followed:

- High-rider forklift operators must always use fall protection.
- Employers should ensure that forklift operators are properly trained and certified as per the OSHA regulation 29 CFR 1910.178.

### INTRODUCTION

On June 11, 1998, NJ FACE investigators were notified by the county ME of a work-related fatal fall that occurred on June 5, 1998. FACE investigators contacted the employer and arranged for a site visit that was conducted on June 30, 1998. During the visit, investigators interviewed two



company representatives and observed the incident site and forklift. Additional information on the incident was obtained from the OSHA investigation file, the police report, and medical examiner's report.

The employer was the distribution warehouse for a chain of 13 furniture stores. The company had been in business for more than 50 years and employed 150 unionized workers at the warehouse. Initial safety training for the forklift operators was given by an outside consultant and followed up by on-the-job training. The company did not have a written forklift safety program. However, they did support a union-management safety committee. The victim was a 26-year-old forklift operator who had worked at the warehouse for six years. He was a certified forklift operator who had completed a two-hour forklift safety program in July 1997.

## **INVESTIGATION**

The incident occurred in a large, well-maintained furniture warehouse in an industrial area. The warehouse contained storage racks, loading docks, business offices, and a retail outlet for the company. Manufacturing was not done at the facility; the company purchased furniture from outside manufacturers and stored the merchandise in the warehouse. All deliveries for the company originated from this location. Order-pickers moved through the warehouse on forklifts, pulling off the items needed for an order and stocking new merchandise on the racks. Inventory was controlled through a newly installed computerized tracking system with terminals on each forklift.

Furniture was stored on steel frame warehouse racks with multiple tiers. The racks were arranged closely together, leaving a five-foot wide aisle between them. Steel rails were bolted to the floor along the aisles to prevent the wheels of the forklifts from striking the bottom of the racks. The racking system was designed so that pallets were not needed. The company used high-rider "order-picker" forklift trucks, which are similar to conventional forklifts except that the operator's cab is designed to rise with the forks (see figure 1). Furniture was loaded onto rolling carts designed to mate with the forks of the order-picker trucks. This created an eight foot long by four foot wide platform, allowing the operator (who stands next to the platform in a semi-enclosed cab) to step onto the platform to move merchandise on or off the racks. Each

forklift had recently been equipped with a retractable safety lanyard secured to the roof of the cab. These lanyards were attached to the operator's safety harness to provide fall protection when the forklift was raised.

There were no witnesses to the incident. On Friday, June 5, 1998, the victim arrived at the warehouse at 7:00 a.m. and went to work with an order-picker forklift truck. About 45 minutes later the co-workers heard a crashing noise and went to investigate. They found the victim's forklift raised about 18 feet off the ground with the victim unconscious and bleeding on the cement floor with severe head injuries. The forklift's platform had fallen and was caught on the lower racks. Marks on the upper storage rack suggest that the lift had possibly struck the rack as it moved down the aisle, pulling the platform off the forks. The impact apparently caused the victim (who was not wearing his safety harness) to fall from the forklift. As someone called 911, one worker climbed up the forklift to move it away to make room for the rescue. Police and EMS arrived and found the victim in critical condition. A medevac helicopter was dispatched and transported him to the regional trauma center where he was placed on full life support. Despite all efforts, he failed to improve and was taken off life support on June 9, 1998.

### **CAUSE OF DEATH**

The county medical examiner attributed the cause of death to "fractured skull, subarachnoidal hemorrhage, edema, and contusions of the brain."

### **RECOMMENDATIONS/DISCUSSIONS**

**Recommendation #1: High-rider forklift operators must always use fall protection.**

Discussion: The victim was not wearing his fall protection harness at the time of the incident. The employer stated that the victim had been instructed in the past to wear the harness but apparently did not heed the warnings. FACE recommends that all forklift high-rider operators be required use fall protection at all times. Each forklift at the warehouse was equipped with a retractable safety lanyard for attaching to the operator's safety harness, providing fall protection while the lift was elevated. Proper training and strict enforcement of company regulations must be done to ensure that fall protection is properly used.

**Recommendation #2: Employers should ensure that forklift operators are properly trained and certified as per the OSHA regulation 29 CFR 1910.178.**

**Discussion:** The company was cited by federal OSHA for not providing adequate training for forklift operators. It should be noted that all employers who use forklift trucks must comply with the OSHA regulation 29 CFR 1910.178, *Powered Industrial Trucks*. This standard requires employers to provide classroom and hands-on training to the operators. Training must be specific to the worksite and equipment used and taught by someone who is competent to train forklift operators. Operators must be certified as having passed their training and must be periodically reevaluated. The complete standard and information on other regulations are available from the following sources:

**U.S. Department of Labor, OSHA**

On request, OSHA will provide information on safety and health standards. OSHA has several offices in New Jersey that cover the following areas:

- Hunterdon, Middlesex, Somerset, Union, and Warren counties.....(732) 750-4737
- Essex, Hudson, Morris, and Sussex counties.....(973) 263-1003
- Bergen and Passaic counties.....(201) 288-1700
- Atlantic, Burlington, Cape May, Camden, Cumberland, Gloucester,  
Mercer, Monmouth, Ocean, and Salem counties.....(609) 757-5181

**NJ Public Employees Occupational Safety and Health (PEOSH) Program**

The PEOSH act covers all NJ state, county, and municipal employees. The act is administered by two departments; the NJ Department of Labor (NJDOL) which investigates safety hazards, and the NJ Department of Health and Senior Services (NJDHSS) which investigates health hazards. Their telephone numbers are:

NJDOL, Office of Public Employees Safety .....(609) 633-3896  
NJDHSS, PEOSH Program.....(609) 984-1863

**NJDOL Occupational Safety and Health On-Site Consultative Program**

Located in the NJ Department of Labor, this program provides free advice to private businesses on improving safety and health in the workplace and complying with OSHA standards. For information regarding a safety consultation, call (609) 292-0404, for a health consultation call (609) 984-0785. Requests may also be faxed to (609) 292-4409.

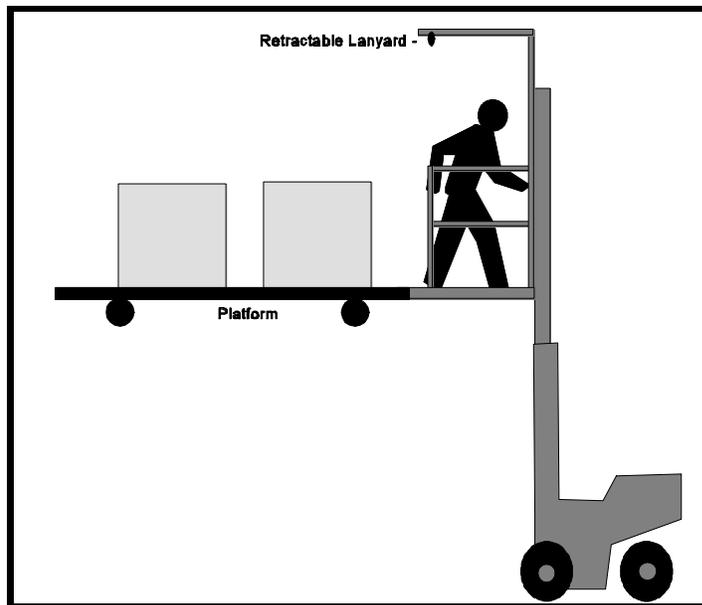
**New Jersey State Safety Council**

The NJ Safety Council provides a variety of courses on work-related safety. There is a charge for the seminars. Their address and telephone number is: NJ State Safety Council, 6 Commerce Drive, Cranford, NJ 07016. Telephone (908) 272-7712

**Internet Resources**

Information and publications on safety and health standards can be easily obtained over the Internet. Some useful sites include:

*www.osha.gov* -  
of Labor OSHA  
*www.cdc.gov/ni*  
CDC/NIOSH  
*www.state.nj.us*  
*b/peoshome.htm*  
PEOSH  
*www.dol.gov/el*  
Employment  
Workers and



The US Department  
website.  
*osh/* - The  
website.  
*/health/eoh/peoshwe*  
-The NJDHSS  
website.  
*aws* -USDOL  
Laws Assistance for  
Small Businesses.

**Figure 2**  
High-Reach (Order-Picker) Forklift Truck

## **DISTRIBUTION LIST**

### Immediate Distribution

NIOSH

Employer

Labor Union

NJ State Medical Examiner

County Medical Examiner

Local Health Officer

NJDHSS Census of Fatal Occupational Injuries (CFOI) Project

### General Distribution

USDOL-OSHA New Jersey Area Offices (4)

NJDOL Office of Public Employees Safety

NJDHSS Public Employees OSHA

NJDOL OSHA Consultative Service

NJ State Safety Council

NJ Institute of Technology

University of Medicine & Dentistry of NJ

Rutgers University

Stevens Institute of Technology

College of NJ

NJ Shade Tree Federation

NJ Utilities Association

NJ School Boards Association

Public Service Electric and Gas Company

Liberty Mutual Insurance Company Research Center

Private Consultants (4)

Private Employers (8)

Public Employers (6)

Other Government Agencies (4)