INVESTIGATION REPORT

Fatality Assessment & Control Evaluation Project

FACE 99-NJ-091-01 May 31, 2001

Tow Truck Helper Run Over While Unloading a Car from a Flatbed Truck

On November 11, 1999, a 41-year-old tow truck operator was run over by his tow truck while unloading a car at a scrapyard. The victim and his partner were unloading two cars from a flatbed tow truck, one car secured on the flatbed and a second towed behind the truck. After the car in tow was unloaded, the truck's flatbed was raised to unload the second car. There were some problems unloading the second car, so the tow truck operator jerked the truck back and forth to release it. In doing so, he backed over the victim who was working behind the truck. He then ran over him a second time as he moved forward, with the truck coming to rest with the victim pinned under the rear wheel. Scrapyard employees tried to rescue the victim by lifting the truck with a grapple crane but the grapple slipped and the truck fell back on him. The victim was freed on the next attempt but died despite efforts by police and EMS to resuscitate him. NJ FACE investigators concluded that, to prevent similar incidents in the future, these safety guidelines should be followed:

- Tow truck operators must use caution while operating and backing their vehicles.
- Employers should become familiar with available resources on safety standards and safe work practices.





INTRODUCTION

On November 16, 1999, NJ FACE investigators were notified by a newspaper article of a fatal incident involving a tow truck that occurred on November 11, 1999. On March 21, 2000, two NJDHSS FACE investigators and a visiting NIOSH FACE investigator interviewed the scrap company's health and safety representative and two employees who witnessed the incident. Investigators also briefly examined and photographed the incident site. A second site visit to the scrap yard was done on March 30, 2000 to interview a third Spanish-speaking witness with the aid of an interpreter. Additional information was obtained from federal OSHA, the police report, and the medical examiner's report.

The incident site was a scrapyard located in an urban area. Sold in 1998 to a larger metal recycling corporation, this facility had been in operation since 1960 and employed eight workers. The company employed 300 employees in eight facilities and had a corporate health and safety person responsible for employee and customer safety. Approximately 6,000 tons of scrap are collected and processed by this facility each month. The victim worked as a partner for a small towing and salvage company. No information is available on the company as the victim's partner was not available for interview.

INVESTIGATION

The scrapyard was a metal recycling operation that bought and sold scrap metal. Customers brought scrap metal to the yard to be weighed and sold. Smaller vehicles (such as pickup trucks) were weighed when they arrived at the yard and then weighed a second time after unloading. Larger vehicles (such as dump and container trucks) were weighed on another, larger scale inside the scrapyard. The difference in weight was determined and the customer paid by the weight and type of metal brought in. A large grapple crane (an excavator equipped with a grapple- see photo) was on site to unload customer's trucks and load company container trucks as needed. The yard also accepted scrap cars, which they drained of fluids and flattened in a car crusher. The collected scrap was separated by type (steel, aluminum, etc.) and sold directly to steel mills or sent to a shredder yard for further processing.

The incident occurred on Wednesday, November 10, 1999. Shortly after 1:00 p.m., the victim and his

partner arrived at the scrapyard in a 1988 flatbed tow truck. The victim's partner was driving the truck; the victim was acting as helper. They had brought two junk cars to be scrapped; one secured to the top of the flatbed and a second towed behind the truck. Employees at the scrapyard recognized the two as regular, daily customers and weighed them in. They drove the truck about 50 feet to the adjoining car yard. The victim left the truck and unhooked the car in tow. The driver then positioned the truck to the side of the first car and raised the flatbed to release the second car. During this time, the two men were heard talking about taking the chains off. The victim was overheard to say something about a leak under the truck's tire. Apparently, they were having some difficulty unloading the damaged second car which could not roll off the truck on its own. The victim was seen placing a wheel rim under the rear bumper of the car. (This was apparently done to anchor the car to the ground. The rear of the car would be lowered on the wheel rim, taking the weight of the vehicle. This would help pull the car off the flatbed as the truck moved forward.) The driver moved the truck quickly back and forth in an attempt to force the car to slide the car off the flatbed. The driver did not see the victim and





Photo 1
Flatbed unloading car

(File photos- not taken at incident site)

Photo 2 Grapple Crane

backed over him, then ran over him a second time as he pulled forward. A scrapyard employee yelled for him to stop, and the driver stopped with the truck's left rear tires on the victim's chest.

At this point the victim was motionless and unresponsive. The scrapyard employees rushed over to the

grapple crane and yelled for the operator to lift the car off the victim. The operator drove the crane a short distance to the truck and positioned the grapple over the end of the raised flatbed. He carefully grabbed the truck, fearing that the additional weight of the grapple on the truck would further crush the victim. As he lifted the vehicle the grapple slipped, causing the truck to fall back on the victim. A second attempt to lift the truck was successful, and the victim was pulled out from under the trucks tires. The EMS arrived to find the victim unresponsive and without a pulse. He was pronounced dead of his injuries at 1:48 p.m.

RECOMMENDATIONS/DISCUSSIONS

Recommendation #1: Tow truck operators must use caution while operating and backing their vehicles.

Discussion: It is not known exactly what the victim was doing when he was killed. Circumstances suggest that he was run over while positioning the wheel rim under the car or examining the truck's tire for a leak. To prevent future incidents, NJ FACE recommends that tow truck operators use the following NIOSH guidelines when backing their trucks ¹:

Before backing, drivers should:

- -Turn on the vehicles hazard lights
- -Roll down the window
- -Turn off tape players and radios (except for two-way radios)
- -Visually locate workers on foot to make sure they are clear of the vehicle.

While backing, drivers should:

- -Stop backing immediately if visual contact with the workers is lost
- -Resume backing only when visual contact with the workers is restored
- -Use a coworker as a spotter
- -Use agreed-upon hand signals to communicate with the spotter.

Crew members and spotters should:

- -Remain inside the vehicle unless needed as a spotter
- -Remain visible in the driver's mirrors
- -Never step or cross behind the truck while its backing or when its backup lights are on
- -Use agreed-upon hand signals to communicate with the driver.
- -Immediately signal the driver to stop if any person or object is behind the truck.

Recommendation #2: Employers should become familiar with available resources on safety standards and safe work practices

<u>Discussion</u>: It is extremely important that employers obtain accurate information on safety and that they adhere to all OSHA standards. The following sources of information may be helpful:

U.S. Department of Labor, OSHA

Federal OSHA will provide information on safety and health standards on request. 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	(856) 757-5181

NJ Public Employees Occupational Safety and Health (PEOSH) Program

The PEOSH Act covers all NJ state, county, and municipal employees. Two state departments administer the act; the NJ Department of Labor (NJDOL) which investigates safety hazards, and the NJ Department of Health and Senior Services (NJDHSS) which investigates health hazards. PEOSH has information that may benefit private employers. Their telephone numbers are:

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

New Jersey State Safety Council

The NJ State 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

Some useful internet sites for occupational safety and health information:
www.osha.gov -The US Department of Labor OSHA website.

www.cdc.gov/niosh - The CDC/NIOSH website.

www.state.nj.us/health/eoh/peoshweb -The NJDHSS PEOSH website.

www.dol.gov/elaws -USDOL Employment Laws Assistance for Workers and Small Businesses.

www.njsafety.org -New Jersey State safety council

REFERENCES

1. *NIOSH Alert: Preventing Worker Injuries and Deaths From Moving Refuse Collection Vehicles*, pp. 5-6. NIOSH publication number 97-110, NIOSH Publications Dissemination, 4676 Columbia Parkway, Cincinnati OH 45226. Telephone 1-800-356-4674.

DISTRIBUTION LIST

Immediate Distribution

NIOSH

Employer

Incident Site Owner

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 Institute of Technology

University of Medicine & Dentistry of NJ

Rutgers University

Stevens Institute of Technology

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 (2)

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Public Employers (4)

Other Government Agencies (2)