

# F.A.C.E. INVESTIGATION REPORT

## Fatality Assessment and Control Evaluation Project

FACE #97-NJ-078-01  
Recycling Plant Worker Killed When Caught  
in a Closing Overhead Bay Door



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FROM: Fatality Assessment and Control Evaluation (FACE) Project  
New Jersey Department of Health & Senior Services (NJDHSS)

SUBJECT: Face Investigation #97-NJ-078-01  
Recycling Plant Worker Killed When Caught in A Closing Overhead Bay Door

DATE: February 23, 1998

### **SUMMARY**

On June 9, 1997, a 31-year-old recycling plant worker was killed when he was caught under a closing overhead bay door. The victim and his co-workers were leaving for the day when the victim went back into the plant, apparently to close the overhead door to the glass grinding building. When he did not return, his co-workers looked for him. He was found inside the glass grinding building with his neck caught between the metal roll-up bay door and a metal partition for a conveyor belt. NJDHSS FACE investigators concluded that, to prevent similar incidents in the future, these safety guidelines should be followed:

- ! Employers should conduct a job hazard analysis of all work activities with the participation of the workers.
- ! Employers and employees should be aware of the dangers of drugs and other substances that may impair judgement or alertness.
- ! Employers should become familiar with available resources on safety standards and safe work practices.

## **INTRODUCTION**

On September 11, 1997, NJDHSS FACE personnel were informed by the county medical examiner of a worker who was killed in a work-related incident that occurred on June 9, 1997. FACE investigators contacted the employer and arranged a site visit which was conducted on September 25. At that time, we interviewed the company owner and viewed and photographed the incident scene. Additional information was obtained from the OSHA investigation file and the police and medical examiners' reports.

The employer was a small recycling company that collected, processed, and resold recycled glass and metal cans. The company was a family business started in the late 1800's to collect reusable glass bottles. After evolving through several related businesses, it became the present recycling plant in 1985. At the time of the incident, the company employed 12 workers, including the victim. The company did not have any formal safety and health training or procedures.

The victim was a 31-year-old male laborer who worked as a final inspector, removing debris from the glass as it passed by him on a conveyor belt. Working for the company for the past ten years, he was described by the owner as an excellent worker who liked his job. He always worked overtime when asked, including coming in on Saturdays to help with machine maintenance.

## **INVESTIGATION**

The recycling plant was located in an urban industrial park and consisted of several small buildings surrounding the company office. Glass was trucked into the plant and placed into a hopper that fed a conveyor belt. First passing by an inspector who removed any loose debris by hand, the glass went to a crushing machine where it was reduced to uniform 5/8 inch sized pieces. Metal bottle caps, paper labels, and other materials were removed in the process using magnets, screens, and vacuums. The finished cullet (crushed glass) was conveyed past a worker for final inspection before being sold to glass manufacturers. In 1996, the company reported processing about 60,000 tons of glass.

The incident occurred in the glass grinding building. This building had a hopper just outside the building in front of a large (12 foot high, 16.5 foot wide) bay door. The hopper fed glass to a conveyor that ran through the doorway into the building. A 4.5 foot square metal partition had been built into the doorway, which was designed to fit a cut-out section of the bay door (see Figure/Photo). When lowered, the door's cut-out section fit into the partition, allowing operation

of the conveyor belt with the door closed. The bay door was operated by a single, three-button controller mounted inside the building, six feet off the floor and a few inches to the right of the door. Directly beside the bay door was a standard walk-through door, which was unlocked. When started, the bay door was noisy and took about 15 seconds to close.

There were no witnesses to the incident. The day of the incident, a Monday, was a typical workday. The employees reported for work in the morning and operated the plant until 3:00 p.m. when they ran out of glass to process. The production lines were shut down and the workers were assigned to painting metal rolloff boxes (truck containers) for the remainder of the workday. At 4:30 p.m., the workers quit for the day, and the victim and two co-workers went to the mens room to wash up before punching out at the time clock. A fourth worker went to his car and waited to give the others a ride home. After washing, the men went to the car and waited for the victim, who had gone back into the plant. The victim's co-workers waited for him for a few minutes before sounding the car horn to get his attention. The co-owner of the plant was about to release the guard dogs when he heard the horn and went to find out what was going on. As he walked past the grinder building, he noticed that the bay door had not been fully closed. He then saw the victim's head and realized that his neck was caught between the bottom of the bay door and the top of the conveyor partition. He yelled for help and hit the button to open the door, releasing the victim into his arms. The other workers returned and called the police, who arrived quickly. EMS personnel started CPR on the victim, who was transported to the local hospital where he was pronounced dead at 5:41 p.m.

It is not known why or how the victim became caught between the door and partition. He apparently went to the grinder building to close the door, which was one of his duties. It was noted on the victim's toxicology report that he was positive for cocaine and had a blood alcohol of 0.26%, more than 2½ times New Jersey's legal limit of 0.1% for operating a motor vehicle. This would have seriously affected his judgement in operating any type of machinery, possibly leading to the incident.

### **CAUSE OF DEATH**

The county medical examiner attributed the cause of death to "traumatic asphyxia due to compression of the neck."

### **RECOMMENDATIONS AND DISCUSSION**

***Recommendation #1: Employers should conduct a job hazard analysis of all work activities with the participation of the workers.***

Discussion: In this incident, the space between the bay door and the conveyor partition presented a pinch point but was not an overt hazard due to the slow and noisy movement of the bay door. The employer immediately corrected the hazard by installing a heavy metal screen to guard the opening and prevent workers from reaching into the pinch point. To prevent incidents such as this, we recommend that employers conduct a job hazard analysis to identify the potential safety hazards in the plant. A job hazard analysis should begin by reviewing the employee's work environment. Each work task is examined for fall, electrical, chemical, or other hazards the worker may encounter. Once identified, the employee can be instructed on how to correct or avoid the hazard. The results of the analysis can be used to design or modify a written safety program. If employers are unable to do a proper job hazard analysis, they may wish to consider hiring a qualified consultant to do the analysis for them.

***Recommendation #2: Employers and employees should be aware of the dangers of drugs and other substances that may impair judgement or alertness.***

Discussion: The medical examiner's report noted a positive toxicology for alcohol and drugs in the victim's blood. The FACE project strongly recommends a "no tolerance" policy towards working under the influence of alcohol and illegal drugs. Employers and employees must be made aware of the dangers that alcohol and drugs (including prescription, non-prescription, and illegal drugs) may present in the workplace. Training should include strong warnings about the use of drugs that may impair a worker's judgement, alertness, and physical abilities. Employees found to have problems should be referred to the company's employee assistance program or an outside consulting service.

***Recommendation #3: Employers should become familiar with available resources on safety standards and safe work practices.***

Discussion: It is extremely important that small business owners obtain accurate information on health and safety and following OSHA standards. The following sources of information may be helpful:

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

On request, OSHA will provide information on safety standards and requirements for fall protection. OSHA has several offices in New Jersey that cover the following counties:

- 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

**NJDOL OSHA Consultative Services**

This organization, located in the New Jersey Department of Labor, will provide free advice for business owners on methods of improving health and safety in the workplace and complying with OSHA standards. The telephone number is (609) 292-3922.

**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. The address and telephone number is: NJ State Safety Council, 6 Commerce Drive, Cranford, New Jersey 07016. Telephone (908) 272-7712

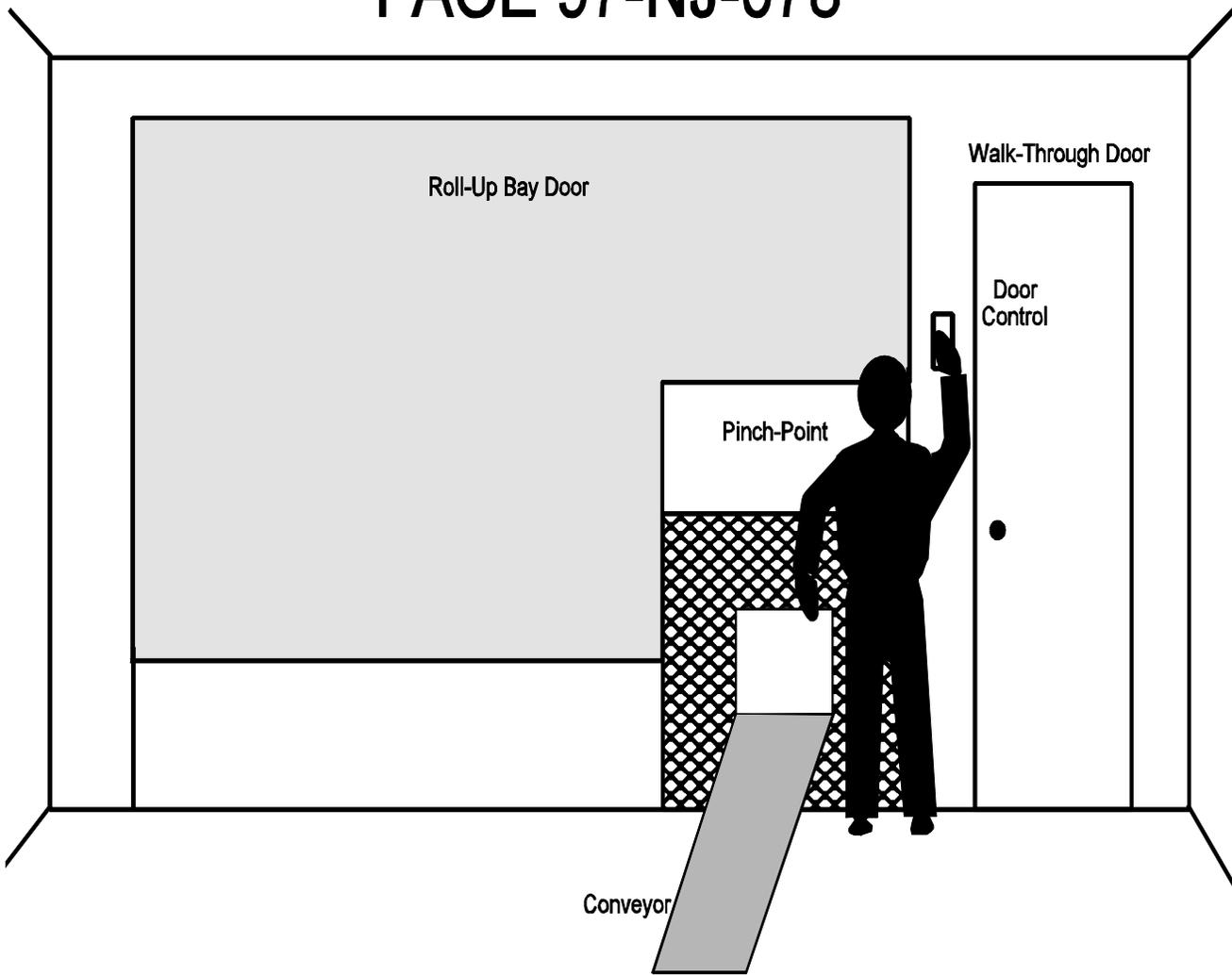
**Internet Resources**

Information on OSHA standards can also be easily obtained over the internet at the US Department of Labor’s OSHA website [www.osha.gov](http://www.osha.gov) . Other useful information can be found the USDOL’s Employment Laws Assistance for Workers and Small Business (ELAWS) system at [www.dol.gov/elaws](http://www.dol.gov/elaws) .

**ATTACHMENTS**

*Job Hazard Analysis*. OSHA 3071, US Department of Labor, Occupational Safety and Health Administration, Washington DC. 1988.

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**Figure 1**

Illustration showing pinch point between the roll-up bay door and conveyor belt

## **DISTRIBUTION LIST**

### **Immediate Distribution**

NIOSH

Employer

Decedent's Family

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 Public Employees OSHA

NJDHSS Public Employees OSHA

NJDOL OSHA Consultative Service

NJ State Safety Council

NJ Institute of Technology

NJ Shade Tree Federation

NJ Utilities Association

NJ School Boards Association

University of Medicine & Dentistry of NJ

Public Service Electric and Gas Company

Liberty Mutual Insurance Company Research Center

Private Consultants (3)

Private Companies (8)