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Custodian Dies in a Confined Space in a Hospital Laundry

Massachusetts FACE Investigation 91MA002

DATE: February 12, 1992

SUMMARY

A 33 year old man (victim) from the Dominican Republic died in a confined space in a hospital laundry. The victim was cleaning plastic debris off the inside of a laundry dryer with a chisel. He had entered the large industrial dryer through a small opening 25 inches by 40 inches propped open with a 2 by 4, and was not visible to other employees. The automated system was activated, delivering 200 pounds of wet laundry to this dryer, knocking the door closed, and beginning the 6 minute, heated drying cycle. The injuries sustained caused his death. The Department of Labor and Industries concluded that employers should take the following steps to prevent future similar occurrence:

- **ensure that any machinery being cleaned or repaired is locked out or tagged out by the person doing the task**
- **develop a confined space entry program with emergency rescue procedures, a permit system and a standby person assigned outside the confined space**
- **reduce the need to enter a confined space for cleaning by eliminating or minimizing the delivery of inappropriate plastic materials to the washers and dryers**
- **develop, implement and enforce a comprehensive safety program that includes at its core the training and direction of employees, in their own language, regarding safety and health hazards on the job.**

INTRODUCTION

On November 21, 1990, at 7:54 p.m., a 33 year old janitorial worker died of injuries sustained when he was trapped in a hospital laundry linen dryer. The man had been chiseling plastic debris off the inside of the fryer whin the electrical control for the dryer was started at a remote location delivering launder and starting the cycle. Investigators from the Massachusetts Department of Labor and Industries evaluated the site on two occasions,

obtaining information from the local police, the union representing the employees, federal OSHA compliance officers and company officials. Photographs of the dryer, electrical control panel and conveyor belts were obtained.

The employer is a non-profit corporation owned cooperatively by a group of hospitals that operate a laundry for their linens. The laundry had moved to this location two years prior to this incident. Approximately 160 people were employed in this urban, unionized laundry; many were Spanish and Portuguese speaking. The company had no written safety and health policy, no safety and health training and no new employee orientation. The company had recently been inspected by state and federal agencies regarding repetitive strain injuries.

INVESTIGATION

The victim had been hired May 23, 1988, to do general cleaning duties in the offices, restrooms and laundry area. He worked a 12:30 p.m. to 8:30 p.m. shift. His responsibilities also included routinely cleaning the inside of the dryers which became coated with plastic debris whenever chuck pads ("Geri-Pads") were inadvertently washed. The task involved using a 6 foot ladder to gain access to the dryer doors, propping them open with a 2'x4' and climbing inside the dryer to scrape off the hardened plastic from the supposedly maintenance-free dryer inner surface. The task usually took 15 minutes to an hour, most of the time inside the darkened 4 foot by 8 foot drum. His tools included a Phillips head screw driver and home-made chisel; one dryer was cleaned per day.

On November 21, 1990, at about 7:30 p.m. he was cleaning the inside of Dryer #8 which receives linen from the center washer. The doors being propped open led to lighting of a beacon indicating the dryer was out of service or malfunctioning. Despite the error light, the electrical panel was activated. Two hundred pounds of wet laundry were delivered by an automated overhead sling system to the same door the victim had entered. The laundry knocked the 2'x4' out, the door closed and the cycle began. The drying cycle lasted 6 minutes and could have reached temperatures of 217 to 230 degree Celsius, the victim, battered and burnt, was delivered onto a conveyer that receives the dried linens. He was discovered by a co-worker, unconscious. He was pronounced dead at a hospital thirty minutes later.

Investigation revealed he routinely cleaned the dryers at night. Instruction in the task had been verbal. However, the employee spoke Spanish, with very few English skills. He had received no health and safety training. Nothing prohibited the dryer from being activated while he was inside the dryer, out of sight of other co-workers.

CAUSE OF DEATH

The medical examiner listed cause of death as severe body burns and blunt head trauma.

RECOMMENDATION/DISCUSSION

Recommendation #1: Employers must ensure that all maintenance and custodial personnel responsible for inspection, cleaning or repair of mechanical and electrical equipment can lock out this equipment.

Discussion: An error light on the control panel was misinterpreted by a washroom supervisor. The final wash loads prior to Thanksgiving needed to be dried. Another employee, unaware of the victim's cleaning activities in Dryer 8, restarted the dryer. Activation of the dryer should have been locked out with a lock placed by the employee doing the cleaning task, only to be removed by the same employee. (29 CFR 1910.147)

Recommendation #2: Employers should ensure a confined space entry program is implemented and rigorously followed.

Discussion: A confined space entry program might include a buddy system, permit-to-enter, signs pasted at key points, special training and emergency rescue procedures. In this case, no one was aware of the victim's location inside the drier. He had not received training; no one was prepared to rescue him. (29 CFR 1910.146)

Recommendation #3: Reduce the need to routinely enter a confined space by prevention the deposition of unwanted materials in the dryer.

Discussion: The source of the plastic debris was Geri-Pads which should have been removed from the materials to be washed. Overloading the soil sort line, or rapid conveyer speed could lead to sorting errors. Employers should ensure that all plastic coated materials are eliminated. Extra time in sorting could save time in repair and cleaning.

Recommendation #4: Employers should develop, implement and enforce a comprehensive safety program that included, but is not limited to, training workers in their first language about hazards, specified to their tasks (routine and irregular).

Discussion: Employers should emphasize worker safety by developing a safety program to reduce worker exposures to hazardous situation. In this case, recent evacuations of repetitive strain hazards should have alerted the employer to a deficiency of safety programming. Special attention in training should be given to confined space entry, new employees and other extraordinarily hazardous tasks. These may be identified through health and safety meetings, analysis of OSHA 200 logs and near-miss incidents.

REFERENCES

1. 29 CFR 1910.147, Code of Federal Regulations, Washington, D.C.: U.S. Government Printing Office, Office of the Federal Register. Pages 415-428. (1990)
2. 29 CFR 1910.146, Federal Register, Volume 54 No. 106. Pages 24102-24107. (June 5, 1989).

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