

TO: Director, National Institute for Occupational Safety and Health

FROM: California Fatality Assessment and Control Evaluation (CA/FACE) Program

SUBJECT: Manufacturing Supervisor Falls and Dies in an Elevator Shaft in California.

SUMMARY

California FACE Report #93CA003

November 15, 1994

A 34-year-old Hispanic male manufacturing supervisor (the victim) died after falling approximately 35 feet into an elevator shaft. The victim had been showing his family members his place of employment. The incident occurred when the victim tried to prevent the elevator from going up a level. He attempted to detain the elevator by grabbing the elevator platform's edge and lost his grip. The victim had to be removed by firefighters from the shaft bottom. He was pronounced dead by a paramedic at the scene. The CA/FACE investigator concluded, that in order to prevent similar future occurrences employers should:

- have all elevators inspected and serviced on a regular basis by a licensed elevator technician.
- evaluate their current safety program and incorporate specific training procedures emphasizing the importance of recognizing and controlling hazards in the workplace. These procedures should include, but not be limited to, conducting hazard evaluations before initiating work at a job site and implementing appropriate controls.
- identify areas that may be hazardous to personnel, and restrict or prohibit the use of or access to these areas.

INTRODUCTION

On June 20, 1993, a 34-year-old male manufacturing supervisor (the victim) died after falling approximately 35 feet into an elevator shaft. The CA/FACE investigator was informed of this incident by the county coroner's office. The California Occupational Safety & Health Association (Cal/OSHA) Report and the Coroner's Autopsy Report were obtained by the CA/FACE investigator.

The employer in this incident was a garment manufacturer. According to the landlord, the company had been located in the building for just over a year. There were approximately 400 employees working for the manufacturer at the time of the incident. No operative safety program was provided to employees for use of the freight elevator. There were no restrictions in the use of the elevator by inexperienced or unauthorized personnel.

INVESTIGATION

The employer in this incident was a garment manufacturer. The victim had come to work on a weekend day (non work day) to show his family his place of employment. According to family members who witnessed the incident, at approximately 10:30 a.m., the victim was trying to restrain a freight elevator that was moving from the third to the fourth floor level. The decedent attempted to do this by holding onto the front edge of the elevator platform, while standing at the opening to the elevator shaft on the third floor. The elevator was moving up with the doors in the open position. The victim grabbed the front edge of the elevator platform while it was moving up but lost his grip and fell into the elevator shaft. The victim fell approximately 35 feet.

After the fall occurred, the local fire department was summoned to the scene. Fire fighters had to cut open the exterior corrugated metal door which led to the elevator shaft, in order to reach the victim. The victim was found lying in a supine position, between the buffer springs. He had sustained multiple traumatic injuries to his head and torso. The victim was pronounced dead by one of the attending paramedics at 11:13 am. At approximately 4:00 pm, the victim was transported to the county morgue to have an autopsy performed by county coroner personnel.

The freight elevator was a vintage, late 1920's or early 1930's, model. According to the employer the elevator was used primarily to move materials. The building owner contracted with an elevator maintenance company to maintain the elevator and respond to service calls. The service manager for the elevator service company stated that their O & G contract provided service to check door locks, brakes, relays and other items. He also stated that the difference between a full maintenance contract and their type of contract is that an O & G contract does not provide for call backs if problems are detected. Repairs and service calls are provided at an extra cost.

Interviews were conducted by the Cal/OSHA investigators with employees from the garment manufacturer who used the elevator frequently. Investigators asked if the elevator had ever been seen running with the doors open. The employees stated that they had never seen the elevator run with the doors open, but that they always turned the stop switch off before operating the elevator. When investigators asked them why they did that, the employees responded that a former tenant had told them to do this. The investigators located the former tenant and questioned him with regard to this same matter. He stated that he was aware that the elevator did run with the doors in the open position unless the stop switch was turned off. The former tenant also informed them that he had complained many times to the property manager about the situation.

A comprehensive examination was conducted on the elevator, by a Cal/OSHA elevator unit inspector and two outside consultants. The elevator malfunction was caused by a missing wire in the relay. Without the wire, the relay did not work properly and caused the brake relay to stick. This in turn allowed the elevator to drift and/or run with the doors in the open position.

CAUSE OF DEATH

The Coroner's Autopsy Report stated that the cause of death was traumatic injuries.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Employers and plant/facility owners should maintain contracts which allow elevators to be inspected and serviced on a regular basis by a licensed elevator technician.

Discussion: According to statements made by the family and a former tenant at the plant, the

problem which caused the fatality had been an ongoing one. In this incident, the freight elevator was maintained under an O & G contract. According to the service manager from the elevator service company, this contract did not allow for any call backs. So when the problem was noted, it was not fixed.

Recommendation #2: Employers should evaluate their current safety program and incorporate specific training procedures emphasizing the importance of recognizing and controlling hazards in the workplace. These procedures should include, but not be limited to, conducting hazard evaluations before initiating work at a job site and implementing appropriate controls.

Discussion: In this incident a specific safety program could have addressed the use of the freight elevator. The program could also have addressed which personnel had access to the elevator and who was responsible for contacting the maintenance company when there were problems. A safety program should be evaluated and training procedures incorporated which emphasize the importance of recognizing and controlling hazards in the workplace, following established safe work procedures, and wearing appropriate personal protective equipment. Under Title 8 of the California Code of Regulations (CCRs) section 3203 (a) employers must develop and implement an Injury & Illness Prevention Program which:

- identifies persons with the responsibility for implementing the program;
- includes a system for ensuring that employees comply with safe and healthy work practices;
- includes a system for communicating with employees matters relating to occupational safety and health;
- includes procedures for identifying and evaluating workplace hazards;
- includes procedures for investigating occupational injuries and illnesses;
- includes procedures to develop and implement correction of unsafe working conditions based on the severity of the hazard;
- includes providing training and instruction to those employees operating the freight elevator.

Recommendation #3: Employers should identify areas that may be hazardous to all personnel and restrict or prohibit the use of or access to these areas.

Discussion: Owners of plants/facilities where employees may have access to hazardous areas should work with their employees to identify areas which may be hazardous. After these areas have been identified, signs and/or barriers, along with verbal communication between management and employees should be established. Additionally, if work must be performed in one of the identified hazardous areas, appropriate precautions and procedures should be implemented and enforced.

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FATALITY ASSESSMENT AND CONTROL EVALUATION PROGRAM

The California Department of Health Services, in cooperation with the Public Health Institute and the National Institute for Occupational Safety and Health (NIOSH), conducts investigations of work-related fatalities. The goal of this program, known as the California Fatality Assessment and Control Evaluation (CA/FACE), is to prevent fatal work injuries in the future. CA/FACE aims to achieve this goal by studying the work environment, the worker, the task the worker was performing, the tools the worker was using, the energy exchange resulting in fatal injury, and the role of management in controlling how these factors interact. NIOSH-funded, state-based FACE programs include: Alaska, California, Iowa, Kentucky, Massachusetts, Michigan, Minnesota, Nebraska, New Jersey, New York, Oklahoma, Oregon, Washington, West Virginia, and Wisconsin.

Additional information regarding the CA/FACE program is available from:

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