TO: Director, National Institute for Occupational Safety and Health

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

SUBJECT: A construction elevator operator died when he was struck by the counterweights of a construction elevator in motion

SUMMARY
California FACE Report #05CA009

A 49-year-old Hispanic male elevator operator died when he was struck by the counterweights of a construction elevator in motion as he was making adjustments to the elevator system. The victim was not authorized to perform any adjustments or repairs on the elevator system. His duties consisted of inspecting the elevator before his shift started and then operating the elevator. According to the victims employer, he was the only authorized elevator operator onsite when the incident occurred. The CA/FACE investigator determined that in order to prevent future occurrences, employers, as part of their Injury and Illness Prevention Program (IIPP), should:

- Ensure employees do not perform work outside their original scope of work.
- Ensure employees only have access to areas for which they have authorization.

INTRODUCTION

On July 21, 2005, at approximately 5:15 a.m., a 49-year-old Hispanic male elevator operator died when crushed by the counterweights of an elevator. The CA/FACE investigator learned of this incident on July 22, 2005, through the Los Angeles Coroner's post mortem report. Contact with the victim's employer was made on October 7, 2005. On October 12, 2005, the CA/FACE investigator traveled to the facility where the incident occurred and interviewed the general manager of the facility and other employees working in the facility. The area where the incident took place was examined and photographed.

The employer of the victim was a developer and general contractor that had been in business for ten years. They had 64 employees and five were at the construction site when the incident occurred. The victim had been employed with the company and had worked solely at the construction site for three months. The victim was a native of Honduras and lived in the United States for the past 23 years. According to his employer, he was hired out of the local union hall as an elevator operator and he spoke and wrote both English and Spanish.

The company had a partial written safety program printed in English at the work site. According to the general manager, the rest of the safety program was kept at the company's main office offsite. Safety meetings were held monthly and were documented. The company did not have a training program that provided specific training to its employees. The training most employees received was through the unions representing them in their specific trades. The victim was hired from the local union as a trained and certified elevator operator.

INVESTIGATION

The site of the incident was a new 191-mixed unit development that had been under construction for one and a half years. A construction elevator had been erected on the outside of the building to transport personnel and material to the different floors of the building. Whenever the construction elevator needed adjustments, maintenance, or repair, the company that installed the elevator was to be notified and they were to send a certified elevator repair person to perform these functions. The victim was hired from the union hall to operate the construction elevator. The victim's employer was the general contractor for the job. The victim's normal shift started at 6 a.m., however, he had authorization to come in an hour earlier to open and inspect the elevator and then operate the elevator transporting employees and material to the different floors of the development as needed.

On the day of the incident, the victim reported to work at 5 a.m. He prepared the elevator for service and then transported a few workers up to their floors and noticed the elevator was not returning to a position level with the elevator landing. The victim asked a laborer to get him some tools so he could make the necessary adjustments to the elevator. This was not part of the victim's job responsibilities, and it is not known if he performed these types of adjustments to the construction elevator in the past. Without applying any lockout or tagout, the victim climbed inside the elevator mechanism and started making adjustments. While he was inside the elevator mechanism, some employees wanted to be transported up to their floor, so the victim told the laborer to take them up. The laborer did as he was instructed. As the elevator car ascended up, the counterweights descended down, striking the victim. When the laborer brought the elevator car back down to the elevator landing, he saw the victim in the elevator mechanism and called for help. The paramedics responded within minutes and found the victim in the elevator, unresponsive, with major trauma to his chest and head. He was transported to the hospital and pronounced dead by the doctor on duty.

CAUSE OF DEATH

The cause of death, according to the death certificate, was blunt head and chest trauma.

RECOMMENDATIONS / DISCUSSION

Recommendation #1: Ensure employees do not perform work outside their original scope of work.

Discussion: When employees report to work, supervisors have the responsibility to provide their employees with all the necessary tools to do their job safely. These tools include safe work procedures and the enforcement of those procedures. The victim was a union member who was hired out of the union hall to specifically perform the function of operating the elevator. The company who hired him gave him no instructions or orientation. The operating rules for the elevator were clearly posted inside the elevator box and stated that no one should have been within the mechanism when the elevator was running. The victim was inside the elevator mechanism making adjustments and a laborer was operating the elevator when the incident occurred. Both employees were doing something outside the scope of their work. Employers can enhance worker compliance with safe work practices through programs of task-specific training, supervision, recognition, and progressive disciplinary measures.

Recommendation #2: Ensure employees only have access to areas for which they have authorization.

Discussion: The victim was in a restricted area in which only qualified elevator repair technicians were allowed. The access to the area was through a door that was not secured. The door to the elevator mechanism should have been locked, and the keys kept secured in the company's office and by the company designated to perform the repairs.

Reference:
California Code of Regulations, Vol. 9, Title 8, Sections 1604.1, 1604.2, 1604.5, 1630

EXHIBITS:

Exhibit 1. A picture of the elevator and counterweight involved in the incident.

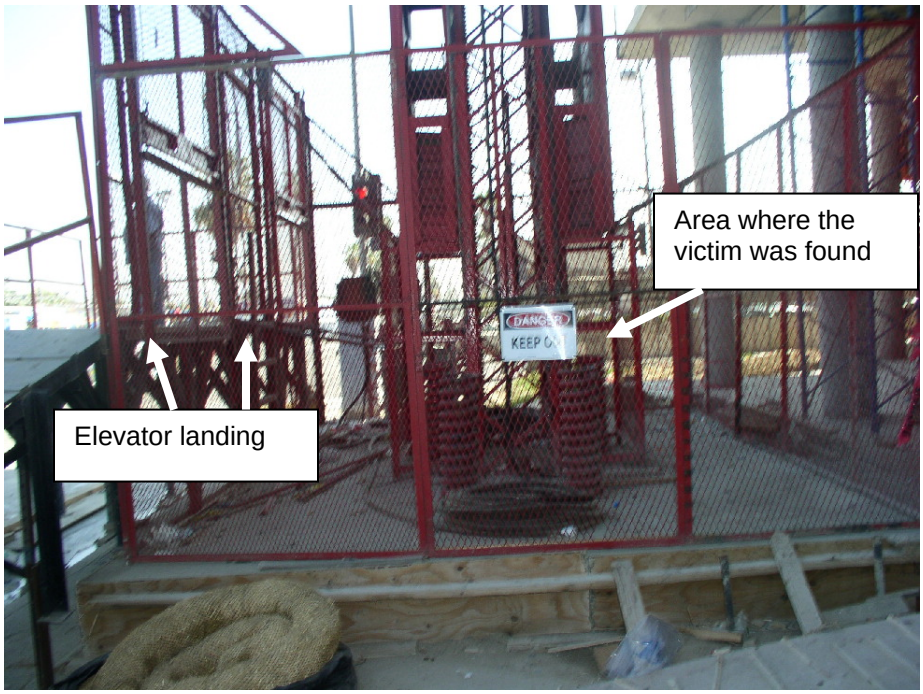

Exhibit 2. A picture of the bottom of the elevator mechanism where the victim was found.

Exhibit 3. A picture of the counterweights at the bottom of the elevator mechanism when the elevator is ascended to the top floor.

Exhibit 4. A picture of the elevator.

Exhibit 5. A picture of the operating rules posted inside the elevator.

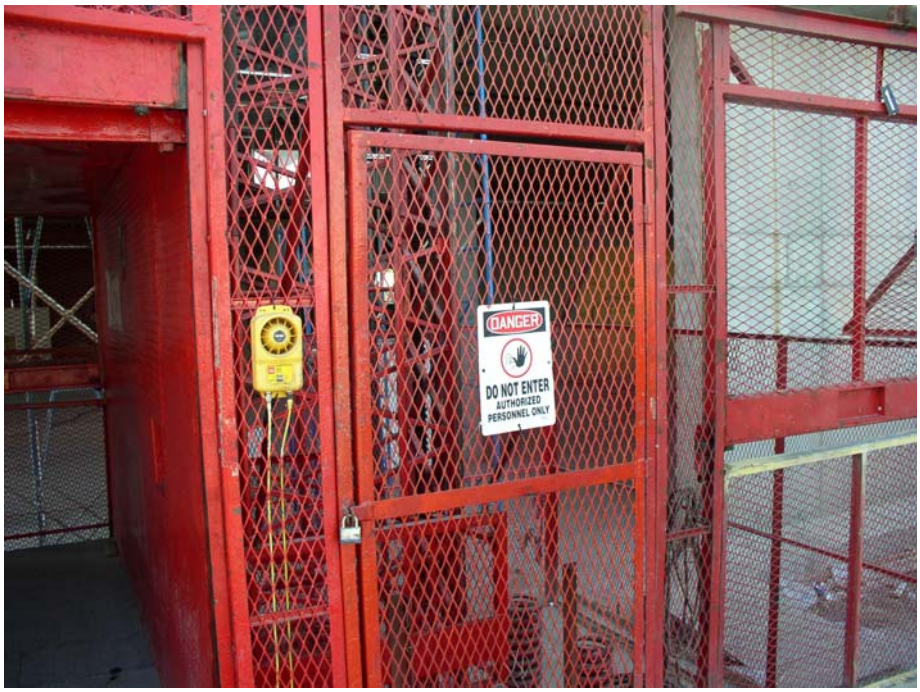

Exhibit 6. A picture of the door the victim used to gain access to the elevator mechanism.

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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.

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

California FACE Program
California Department of Health Services
Occupational Health Branch
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804