TO: Director, National Institute for Occupational Safety and Health

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

SUBJECT: Warehouse laborer falls and dies after being lifted by a forklift to retrieve boxes in warehouse in California

SUMMARY

California FACE Report #92CA015
November 15, 1993

A 33-year-old Hispanic male (victim) warehouse laborer fell six feet and died after being raised by a forklift to gather some boxes. The victim was standing on a wooden pallet which had been lifted approximately six feet off the ground in order to retrieve boxes in an electronics store warehouse. The victim's supervisor was in the immediate area at the time of the incident. This was a routine part of the victim's job, and he was not wearing any personal protective equipment (PPE) at the time of the incident. After the victim had fallen co-workers attempted cardiopulmonary resuscitation (CPR). The supervisor called 911 and paramedics arrived a few minutes after the incident occurred. The California FACE investigator concluded that, in order to prevent future similar occurrences, employers should:

- not lift employees with a forklift unless the forklift has been specifically designed for that purpose.
- devise a new Standard Operating Procedure (SOP) which would make use of an automated system for the retrieval of boxes from the pallets. This would ensure that no employees would be at risk of a fall while trying to retrieve items from elevated locations.
- have a written Injury and Illness Prevention Program (IIPP) and implement it so that employees are aware of workplace hazards and how to avoid them.
- have employees and supervisors trained in First Aid and cardiopulmonary resuscitation (CPR).

INTRODUCTION

On September 24, 1993, at 10:54 a.m. a 31-year-old Hispanic male (victim) laborer fell approximately six feet and died after being lifted on a pallet by a forklift. The victim was retrieving boxes in an electronics store warehouse. The California FACE investigator was informed of this incident on the same day (September 24) by the California Occupational Safety and Health Administration's (Cal/OSHA) office. The California FACE investigator responded to the scene with the Cal/OSHA investigator and the Cal/OSHA Bureau of Investigations (BOI) investigator. A copy of the Cal/OSHA Report, the Police Report, and the Coroner's Autopsy Report were all obtained by the California FACE investigator. The California FACE investigator also took photographs of the incident site.

The employer in this incident was an electronics retail store which had been in business at this location for approximately eight years. There were an estimated 15 employees who worked for the store at the time of the incident. Work hours for employees were from ten A.M. until seven P.M.. The victim had been employed at the store for seven months. He (victim) was performing his routine job when the incident occurred. The company did have a designated safety officer and there were written safety rules at the incident site.

INVESTIGATION

On the day of the incident, the victim and several of his co-workers were getting some boxes in the electronics store warehouse. The boxes the victim was handling were 1.5 feet x 2 feet x 2.5 feet and weighed approximately 20 pounds. This was a routine job for the victim. The area in the warehouse where the victim was working was very cluttered and had boxes stacked up on top of each other. The floor in the warehouse was made of concrete. The forklift was in an aisle and the victim had just been raised on a wooden pallet to retrieve the boxes which were approximately six feet from the ground. The forklift operator was asking his supervisor directions regarding how many boxes were to be brought down. The forklift operator then stated that after he received his directions he turned and saw the victim falling from the pallet to the floor.

The forklift that was used in the incident was an electrically powered unit with a capacity for lifting of 200 pounds. There was a decal on the forklift which stated: "Do not use lift truck to raise people." The victim was not wearing any PPE and there were no guards placed on the pallet. The pallet had not been secured to the forks during this incident.

There were three employees including the supervisor in the immediate area at the time of the incident. The supervisor and the forklift operator were within view of the victim, and a third employee was marking prices on boxes in another area of the warehouse. After the victim fell, the co-workers called out his name several times but received no response. The co-workers then ran over to the victim and noticed that he was not breathing normally, had a faint pulse and looked purple. The victim was also bleeding from the back of the head so the co-workers lifted his head and put some towels underneath it. Two co-workers attempted CPR on the victim. The supervisor called 911 and paramedics were summoned. The co-workers who were giving CPR said the victim began to vomit shortly after they initiated CPR. They tried to clear his mouth and were about to move him, when someone said that the victim should not be moved. At that point, they stopped giving CPR and waited for paramedics to arrive. The co-worker who was in charge of giving CPR stated that he had received his training 18 years ago.

Paramedics arrived a few minutes after the incident occurred and initiated CPR to the victim before taking him to the hospital. The victim was pronounced dead at the hospital at 11:27 a.m..

CAUSE OF DEATH

The Coroner's Autopsy Report stated the cause of death to be craniocerebral trauma due to blunt force trauma.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Employers should not use forklifts to lift employees unless the forklift has been specifically designed with a platform and guardrailing for that purpose.

Discussion: This incident may have been prevented if a guardrail had been in place. Under Title 8 of the California Code of Regulations (CCRs) section 3657 when it is necessary to elevate employees using an industrial truck, the following shall be accomplished: (a) (2) the platform shall be secured to the forks or mast to prevent tipping, slipping or falling; and (a) (3) the platform shall meet the guardrail and toeboard requirements of section 3210. Section 3210 (a) states that guardrails shall be provided on all unenclosed roof openings, open and glazed sides of landings, balconies or porches, platforms, runways, ramps, or working levels more than 30 inches above the floor, ground, or other working areas.

Recommendation 2: Employers should devise a new Standard Operating Procedure (SOP) which could make use of an automated system for the retrieval of boxes from the pallets. This would ensure that no employees would be at risk of a fall while trying to retrieve items from elevated locations.

Recommendation #3: Employers should have a written Injury and Illness Prevention Program (IIPP) and implement it so that employees are aware of workplace hazards and how to avoid them. A safety plan may have addressed the hazards associated with this particular incident. A well developed safety plan could train and place an individual in charge of training and safe work procedures when working with on forklift. Periodic safety meetings could be held so that all new employees are made aware of the hazards of working on a forklifts. This plan could also design a communication system so that employees could submit and discuss their concerns relating to forklift safety.

Discussion: Under Title 8 of the CCRs section 3203 employers are required to establish, implement, and maintain an effective written Injury and Illness Prevention Program (IIPP). Employers should: (1) identify the person or persons with authority and responsibility for implementing the Program; (2) include a system for ensuring that employees comply with safe and healthy work practices; (3) include a system for communicating with employees in a form readily understandable by all affected employees on matters relating to occupational safety and health, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal; (4) include procedures for identifying and evaluating work place hazards including scheduled periodic inspections to identify unsafe conditions and work practices; (5) include a procedure to investigate occupational injury or occupational illness; (6) include methods and/or procedures for correcting unsafe or unhealthy conditions, work practices and work procedures in a timely manner based on the severity of the hazard; and (7) provide training and instructions.

Recommendation #4: Employers should have supervisors and employees trained in First Aid and cardiopulmonary resuscitation (CPR).

Discussion: Under Title 8 of the CCRs section 3400 (b) in the absence of an infirmary, clinic, or hospital, in near proximity to the workplace, which is used for the treatment of all injured employees, a person or persons shall be adequately trained to render first aid. Training shall be equal to that of the American Red Cross.

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