TO: Director, National Institute for Occupational Safety and Health

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

SUBJECT: A service writer for a car dealership died when he was struck in the head by an alignment rack that rolled off a handcart.

SUMMARY
California FACE Report #02CA005

A 31-year-old service writer for an auto dealership was killed when the alignment rack he was pushing up a driveway incline fell off the handcart and crushed his head. The victim's supervisor was pushing the rack with him when the rack got too heavy and started to roll backwards. The supervisor was able to get out of the way but the victim lost his footing and slipped and fell down in the path of the falling alignment rack. The alignment rack was not secured to the handcart. The alignment rack weighed approximately 1,000 pounds. The victim was wearing smooth sole shoes. 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 proper equipment is used to move heavy objects.
- Ensure loads are properly secured before moving them.
- Ensure that supervisors only assign employees to tasks for which they have been trained.
- Ensure that deliveries of equipment are scheduled during normal working hours.

INTRODUCTION

On March 18, 2002, at approximately 8:00 a.m., a 31-year-old service writer for an automotive dealer was killed when an alignment rack fell off a handcart and crushed his head. The CA/FACE investigator learned of this incident on March 28, 2002, through the Legal Unit of the California Division of Occupational Safety and Health (Cal/OSHA). On April 9, 2002, the CA/FACE investigator traveled to the victim's place of employment where he interviewed the supervisor. The company's safety policy and records were reviewed and pictures of the incident scene were obtained.

The employer of the victim was an automotive dealer that has been in business for over 20 years. The company had approximately 40 employees, however, only three were at the site when the incident occurred. The victim had nine years experience in his occupation and had been with the company for seven years when the incident occurred. The victim was performing a task that was not part of his normal duties. The duties of a service writer were administrative in nature and did not include any type of manual duties over and above normal sedentary functions.

The employer of the victim had a safety program and a written IIPP with the required elements. There were task specific safe work procedures written and available for employees to follow whenever performing normal maintenance and service functions. There was no procedure for the task being performed because it was not a common function of the industry. Safety meetings were held monthly and documented. The company did not have a formal training program. Training was accomplished by the automotive manufacturer in a classroom setting and measured by on-the-job-training (OJT

INVESTIGATION

The site of the incident was a local automotive dealership. The incident occurred on the incline of the driveway leading from the street to the shop area. On the day of the incident, the dealer received shipment of an alignment rack for the shop. The truck delivered the rack early in the morning before the majority of employees arrived and before the dealership was open. There were only three employees on site at the time of the delivery. The driver of the delivery truck was unable to wait until the shop opened to deliver the item so he was going to unload it and leave it on the sidewalk near the shop entrance. Because no one else was available, the supervisor asked the victim to help him move the alignment rack into the shop so as not to cause an obstruction on the sidewalk and to protect the new equipment.

With the aid of the hydraulic lift gate on the delivery truck, the alignment rack was removed from the truck bed and onto a handcart. The alignment rack was approximately 15 feet long, 4 feet wide, and weighed over 1,000 pounds. The rack was too long and too wide to be placed flat on the cart, so it was placed lengthwise and on edge on the handcart with the two ends hanging over. The rack was tilted so its base was at an angle to the back of the handcart. The victim and supervisor then attempted to push the handcart sideways up the driveway incline and into the shop. Approximately half way up the ramp, with their hands at the base of the handcart and their bodies fully extended, the weight was too much to move and the alignment rack starting slipping off the handcart. The supervisor was able to roll out of the way, however, the victim's footing slipped and he fell on his stomach just as the alignment rack came off the cart. The alignment rack landed on the victim's head. The supervisor immediately called 911 and the paramedics responded. They transported the victim to a local hospital where he was pronounced dead.

CAUSE OF DEATH

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

RECOMMENDATIONS / DISCUSSION

Recommendation #1: Ensure proper equipment is used to move heavy objects.
Discussion: The use of a handcart to move the alignment rack was not sufficient in size or weight to handle such a load. Material handling equipment should have its capacity marked or stamped on it to indicate its limitations. Had the proper equipment been used to move this alignment rack, this incident might have been prevented.

Recommendation #2: Ensure loads are properly secured before moving them.
Discussion: Unstable material being moved, regardless of its weight, should always be secured to avoid any sudden movement. Had this load been properly secured, this incident might have been prevented.

Recommendation #3: Ensure that supervisors only assign employees to tasks for which they have been trained.
Discussion: Requesting help from untrained personnel can have disastrous consequences. Properly trained employees would be aware of the necessary safety precautions to take when performing specific tasks. A trained employee also knows that hurrying to get a job done may sometimes lead to short cuts on safety. Use of safe practices can be ensured through supervision, training, rewards, and progressive disciplinary measures.

Recommendation #4: Ensure that deliveries of equipment are scheduled during normal working hours.
Discussion: When deliveries are made outside of normal working hours, pressure is sometimes applied to the recipient to accept the product right then or risk the chance of not receiving the item at all, or at a later date with additional costs. Not accepting deliveries until the shop was opened and trained personnel were available should have been part of the contract language that was used to purchase the item.
The movement and installation of the alignment rack was a task that no employee of the company was trained for. When a company has no trained employees for a specific task and has to rely on outside help such as contractors, then the deliveries should be coordinated with the contractor who is going to install the equipment.

References:
California Code of Regulations, Vol. 9, Title 8, Sections 3203 and 3328(a)

Hank Cierpich
FACE Investigator

Robert Harrison, MD, MPH
FACE Project Officer

Laura Styles, MPH
Research Scientist

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FATALITY ASSESSMENT AND CONTROL EVALUATION PROGRAM

The California Department of Health Services, in cooperation with the California Public Health Institute, and the National Institute for Occupational Safety and Health (NIOSH), conducts investigations on 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

Exhibits:

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Exhibit #1
View of the incident scene showing the alignment rack, handcart, and the driveway incline.

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Exhibit #2
A closer view of the alignment rack, handcart, and driveway incline.

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Exhibit #3
View of the incident scene looking south and depicting the pitch of the driveway ramp.

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Exhibit #4
View of the incident scene looking down from the driveway entrance of the shop.