Fatality **A**ssessment and **C**ontrol **E**valuation Project

Public Health

KY FACE #98KY115

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SUBJECT: Lumber Company Employee Falls 48" From Storage Rack to his Death

SUMMARY

In October 1998, a 58-year-old male truck driver/yard worker (the victim) died of traumatic head injuries when he fell 48" from a storage rack. The victim climbed onto the storage rack to retrieve 3/4" round molding, 8 feet in length for a customer. The victim was standing on pine boards that were stored on the middle row and was trying to retrieve molding being stored above (approximately 9 feet off the floor). After he cut the bundle string to release the individual molding pieces, he began to pull the pieces out horizontally. As the pieces were removed, he handed them to the customer to load into his truck. He apparently lost his balance, fell back and struck his head on the concrete floor. The customer had been arranging items in the back of his truck and did not see the victim fall. However, when he heard a thump, he turned around and found the victim laying face up on the concrete. The customer ran to find another employee to call 911 and then went back and stayed with the victim until EMS arrived. EMS arrived and transported the victim to the local hospital. After examination, the victim was air flighted to a major metropolitan hospital where he subsequently died. The cause of death was traumatic head injuries.

In order to prevent similar incidents from occurring, FACE investigators recommend:

- Employees should use ladders or moveable stairs when retrieving materials which cannot be reached from floor level.
- A written policy should be developed regarding when ladders or moveable stairs are required and how they are to be used.
- Employees should be trained about the policy and how to identify and address fall hazards in the workplace.

INTRODUCTION

FACE investigators were informed on 30 December 1998 of the death of a 58-year-old male truck driver/yard worker at a lumber company. The incident occurred on 24 October 1998. An investigation was initiated and a site visit made on 9 February 1999. An interview was conducted with the site manager who was present the day of the incident. Photographs of the scene in its current condition were taken. Prior to the site visit, a copy of the Census of Fatal Occupational Injuries (CFOI) notification form, the coroner's report, and the Kentucky Occupational Safety and Health (OSH) compliance report were obtained.

The lumber company is privately owned with 255 locations throughout the United States. This particular site has been in business for 26 years and has on average 13-14 employees. At the time of the incident, there were 10 employees on site. The facility consists of one office and sales building, three storage buildings and various outside storage areas. The company stores various household maintenance and building products which are sold as is or re-cut to customer specifications. The products are bought, the stock pulled by employees, and then transported by customer conveyance or delivered by company truck.

The yard foreman is the designated safety officer and provides training to orient new employees. The training is delivered on-the-job and covers job duties as well as safety requirements. The safety topics discussed are safe use of ladders and fork trucks. The yard foreman is also responsible for monthly yard inspections which include inspecting all the ladders. The site manager holds monthly meetings with his employees during which safety issues are discussed. The site does not have written safety policies.

The victim was a retired farmer and milk transporter who had been working for the lumber company for two months. He was currently working as a truck driver/yard worker and was responsible for retrieving customers' orders. The victim was fairly new and still in training, however he had been instructed that ladders are required any time someone is retrieving materials from the storage racks. This was the first fatality for this site and the first injury in 3 years.

INVESTIGATION

The typical sequence of events includes a customer making a purchase and then taking their ticket to the warehouse for an employee (yard worker) to fill. On this particular day right before lunch, a friend of the manager came into the store to purchase some material. Because the manager knew the customer he decided to retrieve the material for him. The victim came upon the situation and told the manager he would retrieve the material. Because the victim insisted that he help, the manager sent him to warehouse #3 to retrieve 3/4" quarter-round molding, 8 feet in length. The victim and customer went to the warehouse to load the materials in the customer's truck while the manager remained in the lumber shed.

Although there was a ladder located 5 feet away, the victim climbed up the wooden storage racks to retrieve the molding. The material was stacked horizontally over top of three rows of pine boards and approximately 9 feet above the concrete floor. His feet were positioned in the second row on top of the pine boards approximately 48" from the floor. According to the customer, the victim had either both feet on the loose pine boards or his left foot on the rack support and his right foot on the pine boards.

Dividers were added to the storage rack to separate the different types of molding. The dividers were 1' x 2" furring strips affixed in a vertical position. The bottom and middle of the strips were nailed to the wooden rack. The molding was stored in bundles with 30-40 pieces per bundle. The victim first cut the string to release the individual pieces and began pulling them out and handing them to the customer. As the customer received the pieces he began putting them into the back of his truck. While the customer was arranging items in his truck, the employee apparently lost his balance and fell. His head hit the concrete floor which created enough noise to alert the customer. The customer turned around and saw the victim face-up on the concrete. He ran to find another employee and instructed them to call 911. The customer went back to the warehouse to stay with the victim until EMS arrived. EMS arrived and transported the victim to the local hospital. After examination, he was air flighted to a major metropolitan hospital. The victim was pronounced dead at the hospital that same day. No autopsy was performed.

Days later the yard foreman found a storage rack vertical divider across the aisle of the warehouse from where the incident took place. It was apparent that it had been pulled off of the storage rack. According to the manager, it is presumed that either the victim was holding onto the divider for support while retrieving the molding or grabbed it while falling and it was thrown back behind him as he fell.

CAUSE OF DEATH
The coroner's report listed the cause of death as traumatic head injuries.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Employees should use ladders or moveable stairs when retrieving materials which cannot be reached from floor level. (Note: If employees are working at heights six feet or greater, fall protection devices will be required).

Discussion: When storage rack supports are used as a ladder, the worker not only has to retrieve material but simultaneously must support herself/himself because of the body's awkward position. This reduces the strength and/or ability of the person to support themselves because one hand is needed to retrieve material leaving only one hand to support the body. A ladder or moveable stairs should be used to retrieve materials that cannot be reached from floor level.

Recommendation #2: A written policy should be in place regarding when ladders or moveable stairs are required and how they are to be used.

Discussion: Formalizing the verbal policy into a written document gives it credence and establishes it as an official company document. It also serves as a reference document for new employees to review and for current employees to refer to for questions or clarification.

Recommendation #3: Employees should be trained about the policy and how to identify and address fall hazards in the workplace

Discussion: In this case, the yard foreman is responsible for training new employees about the required use of ladders when retrieving material and completes the monthly inspection for ladders. Since the victim did not use a ladder for this job, it is presumed that either the rules were

not explicit enough indicating ladders were to be used at all times, or the victim knew that a ladder was required but chose not to use one. To clarify this issue, a written policy addressing ladder safety requirements followed by a training session, would ensure that all employees understood the procedure. This session would allow time to discuss examples of when ladders are required and allow time for employees to ask questions.