May 23, 1996

Nebraska FACE Investigation 96NE004

SUBJECT:

Fall from Overhead Crane

SUMMARY:

A 54 year-old maintenance worker fell approximately 24 feet from an indoor overhead crane in a steel manufacturing plant. He landed on a large roll of steel and fractured his skull. He was performing troubleshooting on the crane at the time of the incident. No fall protection was in use at the time of the incident.

The Nebraska Department of Labor investigator concluded that to prevent future similar occurrences:

* Employers and employees should ensure appropriate fall protection equipment is worn by all workers who may be exposed to a fall hazard.

* Employers should consider implementing a spot inspection program to ensure all employees are complying with safety requirements and develop and enforce consequences for noncompliance.

* Employers should consider storing fall protection equipment in close proximity to areas where it is required.

PROGRAM OBJECTIVE:

The goal of the Fatality Assessment and Control Evaluation (FACE) workplace investigation is to prevent work-related deaths or injuries in the future by a study of the working environment, the worker, the task the worker was performing, the tools the worker was using, and the role of management in controlling how these factors interact.

This report is generated and distributed **solely** for the purpose of providing current, relevant education to employers and the community on methods to prevent occupational fatalities and injuries.

INTRODUCTION:

On March 7, 1996, at approximately 8:00 a.m., a 54 year-old maintenance worker died as a result of injuries sustained when he fell from an overhead crane to a roll of steel located on the floor approximately 24 feet below. The NE FACE investigator was notified of this fatality by OSHA. Information for the report was obtained from OSHA, a visit to the incident site by the FACE investigator on April 2, 1996, and an interview with the plant safety manager.

The employer is a steel manufacturer which has been in business for 32 years. The company employs 380 personnel. This was the second fatality in the history of the company. The company has a written safety program, a safety committee, and a full-time safety manager. The victim had been trained in fall protection.

INVESTIGATION:

The company is in the business of steel manufacturing. Large rolls of steel routinely come into the plant on railroad cars. The rolls are unloaded from the cars inside the plant with a 25 ton remote control overhead crane. The rolls are then stacked in the area where the incident occurred. The victim had been employed by the company for 29 years and had been working for approximately two hours when the incident occurred at 8:00 a.m. The morning of the incident the victim and a coworker were troubleshooting the overhead crane. There had been problems with the brake on the hoist not locking properly. The victim and a coworker had been up and down a ladder several times to access the overhead crane. The overhead crane has a footwalk, however the workers had to leave the footwalk to troubleshoot this particular problem. The coworker left the footwalk and climbed onto the trolley. He was not wearing fall protection at the time. The coworker stated the victim said he was going to check a resistor. The next thing the coworker remembers was seeing the victim fall from the bridge rails on which the trolley traveled. The victim made no sounds as he was falling. He fell 24 feet and landed face down on a roll of steel. Coworkers immediately called 911. He was taken to hospital where he was pronounced dead.

Both the victim and the coworker had been trained in fall protection. They each had personal fall protection assigned to them. However, at the time of the incident, the fall protection equipment was in the maintenance shed at ground level inside the facility. There was no evidence that the victim slipped on the bridge rail. No conditions were present that would have contributed to this fatality aside from the nonuse of fall protection.

CAUSE OF DEATH:

The cause of death as stated on the death certificate was open and closed head injuries and chest trauma.

RECOMMENDATIONS/DISCUSSION:

Recommendation #1: **Employers and employees should ensure appropriate fall protection equipment is worn by all workers who may be exposed to a fall hazard.**

Discussion: When working from elevations, personal protective equipment (PPE) (i.e., safety harness, lifelines and lanyards) or other forms of protection, such as catch platforms, should be available and used by all employees exposed to fall hazards. It should be noted this employer had complied with the requirement of 29 CFR 1910.132 regarding personal protective equipment. The employer required fall protection for the activity the victim was performing at the time of the incident and provided fall protection equipment for all employees required to work at elevations. The coworker on the overhead crane at the time of the incident told his supervisor he knew they should have been wearing fall protection.

Recommendation #2: **Employers should consider implementing a spot inspection program to ensure all employees are complying with safety requirements and develop and enforce consequences for noncompliance.**

Discussion: To ensure safety program compliance, spot inspections by supervisors and management should be conducted regularly to verify proper procedures are being followed. Deterrent consequences should be established for non-compliance with the employer's Injury Prevention Program safety requirements. To be effective these consequences should be written

as a part of an employer's Injury Prevention Program which must be enforced when violations are detected. An effective Injury Prevention Program should instill an attitude in everyone that safety will never be compromised for expediency. The coworker in this incident was disciplined for noncompliance with established procedure.

Recommendation #3: **Employers should consider storing fall protection equipment in close proximity to areas where it is required.**

Discussion: At this facility the fall protection equipment is stored in a maintenance shed inside the manufacturing building. If workers are already working on the crane (i.e., on the footwalk) and then decide they need fall protection, they have to descend a ladder, go to the shed and get the fall protection equipment, and then ascend a ladder to the crane. If a storage compartment was installed at the same level as the overhead crane to store fall protection it would make it more accessible and more likely to be used each and every time it is required.

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