

DATE: December 27, 1996

FROM: Minnesota Fatality Assessment and Control Evaluation (MN FACE) Program
Minnesota Department of Health

SUBJECT: MN FACE Investigation 96MN07401
Construction Worker Dies After Falling 17 Feet From An Elevated Platform In A Steel
Warehouse

SUMMARY

A 39-year-old worker (victim) died of injuries he sustained after falling 17 feet from an elevated platform in a steel manufacturing warehouse. On the day of the incident workers were tightening a bolt on steel arm that was used for storage. The victim was standing inside a steel pan that was elevated to 17 feet by means of a side loading forklift. The victim's coworker was standing on stored steel in order to hold the arm in place while the victim tightened the bolt. Neither the victim or his coworker were wearing fall protection at the time of the fall. When the coworker noticed the victim was missing a 911 call was placed to emergency rescue personnel who responded and pronounced the victim dead at the scene.

MN FACE investigators concluded that, in order to reduce the likelihood of similar occurrences, the following guidelines should be followed:

- whenever any work is performed at an elevation where the potential for a serious or fatal fall exists, the employer should ensure that fall protection equipment is provided and used by all employees; and
- employers should design, develop, and implement a comprehensive safety program.

INTRODUCTION

On October 24, 1996, MN FACE investigators were notified of a work-related fatal incident that

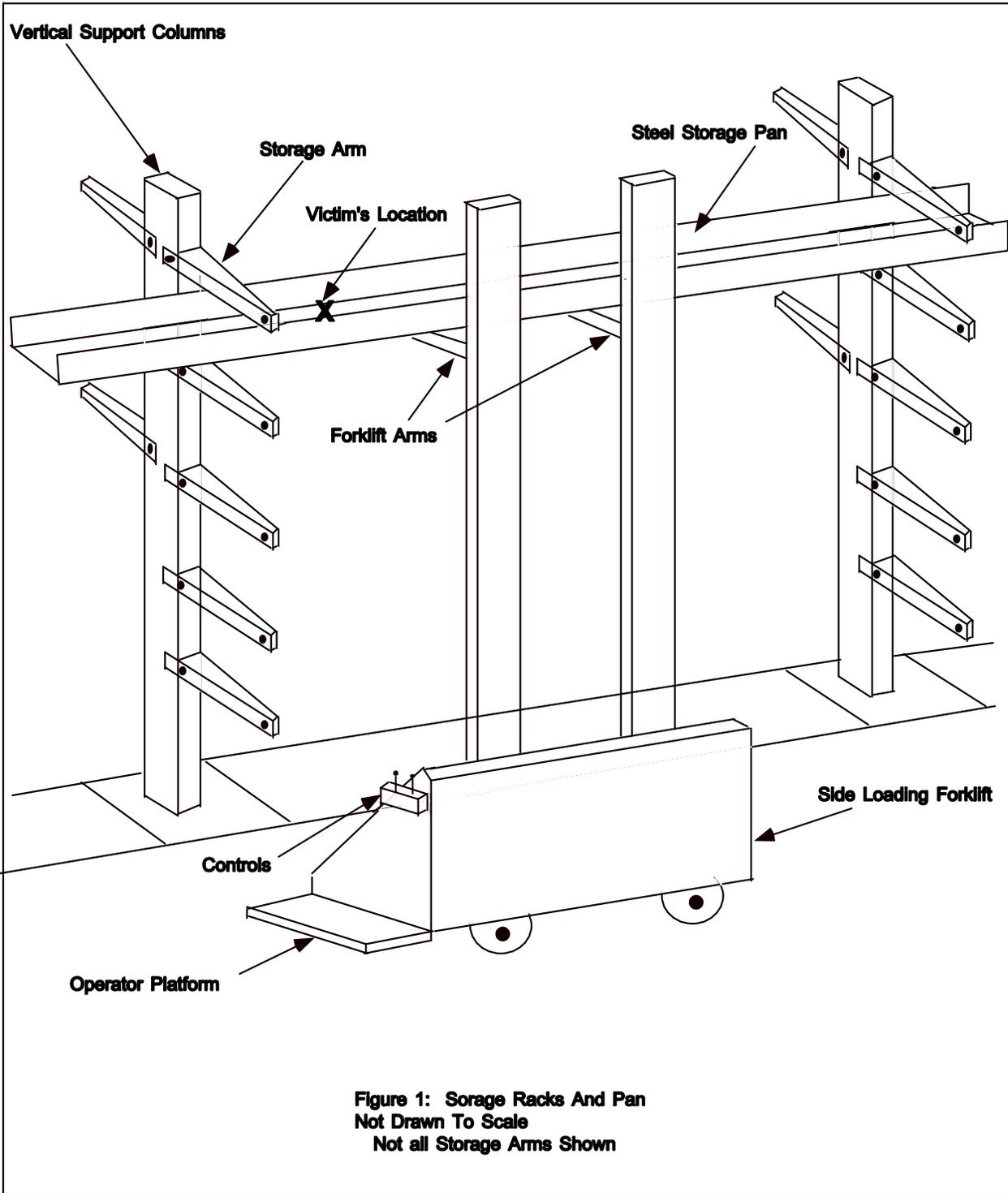
occurred on October 2, 1996. A site investigation was conducted by a MN FACE investigators on December 9, 1996. During MN FACE investigations, incident information is obtained from a variety of sources such as law enforcement agencies, county coroners and medical examiners, employers, coworkers and family members.

The victim worked for a wholesale steel company. The company sells steel to fabricators, manufacturers and other wholesalers in the steel industry. The company has been in business for 40 years and employs 24 people. The victim had worked for the employer for 3.5 years.

INVESTIGATION

The victim was working in a steel warehouse which operated 24 hours a day. The incident took place during the night shift. The victim and a coworker were the only employees in the warehouse at the time of the incident. The warehouse was equipped with racks for storing steel prior to transporting it to customers. The racks consisted of adjustable storage arms attached horizontally to 20 foot high vertical support columns (Figure 1). The arms provided storage compartments on each side of the vertical columns. The vertical support columns were positioned approximately 12 feet apart and the adjustable steel arms were spaced between 30 and 36 inches apart. On some of the storage racks, steel pans were positioned across the arms to store cylindrical steel. The pans prevented the cylindrical steel from rolling off of the storage racks. The steel pans measured 15 feet 1 inch wide by 34 inches deep and 9.5 inches high.

On the day of the incident workers were tightening a bolt on one of the steel arms positioned approximately 20 feet above the ground. The victim was standing inside a steel pan that was elevated 17 feet off the floor by means of a side loading forklift. The pan was secured by placing it under stored steel on a storage rack and on top of the arms of the sideloading forklift. The victim's coworker was standing on stored steel on the rack in order to hold the steel arm in place while the victim tightened it's bolt. During the process of tightening the bolt the victim fell seventeen feet to the concrete floor below. It is unclear why he fell. Neither the victim or his coworker were wearing fall protection at the time of the fall. A 911 call was placed by the victim's coworker to emergency rescue personnel who responded and pronounced the victim dead at the scene.



CAUSE OF DEATH

The cause of death listed on the death certificate was blunt force craniocerebral injuries as a result of a fall from height.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Whenever any work is performed at an elevation where the potential for a serious or fatal fall exists, the employer should ensure that fall protection equipment is provided and used by all employees.

Discussion: The victim was working 13 feet above ground in an area where the potential for a fall existed. The Code of Federal Regulations (29CFR 1926.28 (a)) states that "the employer is responsible for requiring the wearing of appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions." Although the employer in this incident required the use of fall protection when workers were working at elevations above 6 feet, it is unknown why the victim was not wearing fall protection at the time of the fall. If the victim had been wearing fall protection, this fatality may have been prevented.

Recommendation #2: Employers should design, develop, and implement a comprehensive safety program.

Discussion: Employers should ensure that all employees are trained to recognize and avoid hazardous work conditions. A comprehensive safety program should address all aspects of safety related to specific tasks that employees are required to perform. OSHA Standard 1926.21(b)(2) requires employers to "instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury." Safety rules, regulations, and procedures should include the recognition and elimination of hazards associated with tasks performed by employees.

REFERENCES

1. Office of the Federal Register: Code of Federal Regulations, Labor, 29 CFR part 1926.21 (b)(2), 29 CFR part 1926.28(a) U.S. Department of Labor, Occupational Safety and Health Administration, Washington, D.C., July 1, 1994.

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