December 8, 1997

Nebraska FACE Investigation 97NE035

SUBJECT:

30 Foot Fall From Steel Girder

SUMMARY:

A 40-year-old steel erection superintendent was killed when he fell 30 feet from an I-beam while dragging steel decking across steel girders. The victim and a coworker were in the process of constructing a roof on a building and were dragging steel decking into place on steel girders. The sheets were 3' by 30' sections of galvanized steel. The victim and a coworker had removed a sheet from a stack of sheets located on the steel girders and were dragging it into place when the victim fell 30 feet to the dirt floor below.

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

* Provide appropriate fall protection equipment to all workers who may be exposed to a fall hazard and enforce its use.

* Consult with safety specialists when unsure how to provide effective intervention measures.

* Develop, implement and enforce a comprehensive safety program that includes, but is not limited to, training in all hazard recognition and the use of fall protection equipment.

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, their employees and the community on methods to prevent occupational fatalities and injuries.

INTRODUCTION:

On September 3, 1997, at approximately 2:20 p.m., a 40-year-old steel erection superintendent was killed when he fell 30 feet from an Steel girder. The Nebraska Department of Labor was notified by the OSHA on September 3, 1997. The Nebraska FACE investigator accompanied OSHA investigators to the incident site on September 4, 1997 and conducted interviews with the employer and coworkers.

The employer is a steel erector. The company employs approximately 24 people and 7 were working on this particular job site. The company has been in business for eight years and had been at this job site for two months. The company did not have a written safety/injury prevention program or a written fall protection policy. This was the first fatality in the history of the company.

The victim had been employed by the company for 7 years. He had been on this job site for approximately six weeks.

INVESTIGATION:

On the day of the incident, the victim (the crew superintendent on this job) began his workday at approximately 7:00 a.m. The steel erection company he was working for was a subcontractor on a large job (building a new high school) which included several subcontractors. The victim and a coworker had worked through the morning and taken a one-hour lunch break at noon. After lunch they were positioning the steel decking on the roof of the gymnasium. The roof was an open area 105' by 98' (see figure 1). Steel girders were installed at 5' intervals. The width on the top (walking surface) of the steel girder was 7". The sections of steel decking they were positioning were 3' X 30'. The victim and a coworker each picked up one end of the decking and

dragged it across the girders and into position (See figure 2). While dragging a section the victim slipped from the girder and fell 30 feet to the ground below. Both the victim and the coworker were wearing a safety harness at the time of the incident, but neither one was tied off. The coworker said they did not normally tie off when dragging decking. He said in past jobs they had put up tie-off cables but on this job they didn't. He said on this job they were instructed to tie off when they were working at a stationary position but not when moving.

Personnel at the incident site immediately called 911 who responded and transported the victim to a local hospital where he was pronounced dead.

CAUSE OF DEATH:

The cause of death, as stated on the death certificate, was multiple internal injuries.

RECOMMENDATIONS/DISCUSSION:

Recommendation #1: Employers should provide appropriate fall protection equipment to all workers who may be exposed to a fall hazard and enforce its use.

Discussion: When working from elevations, employers should provide personal protective equipment (i.e. safety belts/harnesses, lifelines and lanyards, safety nets) for employees exposed to fall hazards. In this incident the employees were wearing safety harnesses and lifelines but they were not tied of to a an attach point. Employers should provide and enforce the use of personal protective equipment..

Recommendation #2: Employers should consult with safety specialists when unsure how to provide effective intervention measures.
Discussion: A safety specialist could have provided the employer with feasible methods of fall protection for the particular task being performed. In this case, setting up a catenary line to tie off to or providing safety nets as described in CFR 1926.105(a) would have been feasible choices.

Recommendation #3: Employers should develop, implement and enforce a comprehensive safety program that includes, but is not limited to, training in all hazard recognition and the use

of fall protection equipment.

Discussion: All companies, regardless of size, need to have a comprehensive safety program. A comprehensive safety program should have addressed the hazards associated with working at a height of 30 feet with no fall protection. This safety program should include training in the recognition and avoidance of unsafe conditions as required by CFR 1926.21.

REFERENCES:

Office of the Federal Register, National Archives and Records Administration, Code of Federal Regulation, Labor, 29 CFR 1926.21 and 1926.105(a), 1996.