The National Institute for Occupational Safety and Health (NIOSH)

Promoting productive workplaces through safety and health research

Ironworker Falls to His Death from a Steel Truss in Ohio

FACE 8809

INTRODUCTION

The National Institute for Occupational Safety and Health (NIOSH), Division of Safety Research (DSR), performs Fatal Accident Circumstances and Epidemiology (FACE) investigations when a participating state reports an occupational fatality and requests technical assistance. The goal of these evaluations is to prevent fatal work injuries in the future by studying: the working 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.

On December 16, 1987, a 56-year-old male ironworker died and a male co-worker was seriously injured when they fell 47 feet from a steel truss to a concrete floor below.

CONTACTS/ACTIVITIES

Officials of the Industrial Commission of Ohio (ICO) notified DSR of this fatality and requested technical assistance. On January 5, 1988, a DSR research team met with the employer to conduct an evaluation of this incident. Prior to conducting a field evaluation, DSR investigators discussed this incident with ICO personnel, and then conducted a field evaluation.

OVERVIEW OF EMPLOYER'S SAFETY PROGRAM

The victim and a co-worker were employed as ironworkers by a small industrial contracting firm which currently has 70 employees. The company has been in business for 41 years and has a formal safety program. Workers complete an apprenticeship program with the union as well as classroom and on-the-job training with the employer. Reviews of job site conditions and hazards are performed prior to the commencement of each day's work. In addition, any employee found to be in violation of company safety policies is subject to disciplinary action, including dismissal.

SYNOPSIS OF EVENTS

On the day of the incident, the victim, an ironworker with 38 years of experience, and two co-workers were replacing steel roof support material in a building that was 59 years old.

The men were working from a 1-foot-wide steel truss as they burned out smaller cross braces and replaced these with new “wind trusses” measuring 19 feet by 11 inches. The truss they were standing on was steel, and the roofing material above them had been removed prior to the start of this work. Company policy calls for the use of safety belts, lanyards, and lifelines during all such work operations.

Prior to the start of the job, horizontal guy lines were installed for tying off lanyards. The workers were wearing safety belts and lanyards which were not secured to the guy lines at the time of the incident. At a pause in the work, one co-worker turned away momentarily. When he looked back around both of his co-workers were gone, having fallen 47 feet from the truss to a dirt-covered concrete floor.

Emergency medical service (EMS) personnel were summoned to the scene by the plant nurse and arrived approximately 7 minutes after the incident. The victim was dead at the scene. The co-worker was treated at the scene and transported to a nearby hospital where he was admitted with multiple traumatic injuries.

CAUSE OF DEATH

The cause of death was given by the coroner as multiple traumatic injuries.

RECOMMENDATIONS/DISCUSSION

Recommendation #l: Employees should be constantly reminded of the importance of using their safety equipment.

Discussion: The company was aware of the need for fall protection systems since they had experienced a similar incident 4 years earlier. That incident led to the development of a company policy requiring the use of fall protection systems at elevated work areas. The company attempted to follow the policy at this worksite by installing a lifeline and providing employees with safety belts and lanyards. The victim, an ironworker of 38 years experience, was wearing a safety belt, yet he failed to secure his lanyard. It is recognized that the nature of the work being performed by ironworkers often requires them to detach their lanyards from a lifeline in order to reposition themselves. For this reason, the feasibility of using safety nets or catch platforms as additional fall protection should be considered. Additionally, efforts to keep employees aware of the dangers posed by failure to use personal protective equipment must be continual.

Return to In-house FACE reports

Last Reviewed: November 18, 2015