The National Institute for Occupational Safety and Health (NIOSH)

Promoting productive workplaces through safety and health research NIOSH

Mason Dies after Falling 36 Feet from Scaffolding

FACE 9020

SUMMARY

A male brick mason (victim) fell 36 feet to his death while working from a tubular welded frame scaffold. The victim was working as part of a brick laying crew on the exterior of a new building. At the time of the incident, the crew was working from the 6th level of the scaffold. When the work had been finished at this level, the foreman told the workers to take a break while he and a laborer raised the planks to the next level. For some unknown reason, the victim stayed on the scaffolding. Prior to his unwitnessed fall 36 feet to the ground, the victim was seen with one foot on a scaffold brace and the other on the brick sill of the building. NIOSH investigators concluded that, in order to prevent future similar occurrences, employers should:

- **ensure that employees are informed of the hazards of using diagonal braces as a means of climbing a scaffold**
- **conduct scheduled and unscheduled safety inspections regularly at each jobsite**
- **develop, implement, and enforce a comprehensive safety program that includes, but is not limited to, training workers in the proper methods of erecting and working from scaffolds**
- **provide appropriate fall protection equipment to all workers who may be exposed to a fall hazard.**

INTRODUCTION

On November 3, 1989, a 33-year-old brick mason died after falling 36 feet from a tubular metal frame scaffold. On November 9, 1989, officials of the Maryland Occupational Safety and Health Administration notified the Division of Safety Research (DSR) of the death and requested technical assistance. On December 12, 1989, a DSR safety engineer conducted an investigation and met with a company official to discuss the incident. Photographs of the incident site were taken and emergency medical services (EMS) records were obtained.

The employer is a masonry construction company that has been in business for 6 years. The company employs 100 workers, including 30 masons. The company has a designated safety officer and a written safety policy and safety procedures. The company holds regular safety meetings and provides both on-the-job and classroom safety training. Prior to this incident the company had gone approximately 2 years without a lost-time injury. Since this incident, the company has instituted measures for taking disciplinary action for failure to comply with safety rules.

The victim had been hired as a mason/foreman approximately one month prior to the incident. The victim had worked as a mason for over 10 years prior to coming to work for this company.

INVESTIGATION

The victim was working as part of a four-person crew (foreman, two masons and a laborer) laying brick on the exterior of a new building. The crew was working from the 6th level of a tubular welded frame scaffold. (Each level of the scaffold was 6 feet high.) The scaffolding was erected about 2 feet parallel from the face of the building and had attached outriggers (metal brackets installed on the scaffolding toward the building) on which planks were placed for the masons to work from. The crew had just finished laying the brick for the window sill at the third floor level. The foreman told the victim and another mason to take a break while he and a laborer raised the planks to the next level. The co-worker stepped from the scaffold into the building and went down to the ground floor to get some coffee. The victim, for unknown reasons, decided not to leave the work area. He was noticed by a worker to have one foot on the brick sill and his other foot on one of the scaffold's diagonal braces. Witnesses stated that there was some moisture on the scaffolding components that morning which may have made the metal slippery. The victim apparently lost his balance (or slipped) and fell, unwitnessed, to the ground through the center of the scaffolding. The foreman had his back to the victim and was two sections of scaffolding away when the incident happened. The sound created when the victim hit the ground alerted the other workers that he had fallen.

The emergency medical service (EMS) was summoned and arrived at the scene within 2 minutes after receiving the call. The EMS records indicate that the victim was unconscious and in respiratory arrest. He was bleeding from both ears and the nose and had a compound fracture of the skull. The technicians were unable to determine the victim's blood pressure and 8 minutes after arriving were no longer able to detect a pulse. The victim was transported by helicopter to a trauma center where he was pronounced dead on arrival.

CAUSE OF DEATH

The medical examiner's report stated that the cause of death was due to head injuries.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Employers should ensure that employees are informed of the hazards of using diagonal braces as a means of climbing a scaffold.

Discussion: The victim was apparently climbing or maneuvering on the scaffolding by using the diagonal braces as a foot support. Employers should instruct workers that the proper way to climb scaffolding is via the ladders provided.

Recommendation #2: Employers should conduct scheduled and unscheduled safety inspections regularly at each jobsite to ensure worker compliance with established safe work procedures.

Discussion: Employers should conduct, or appoint safety personnel to conduct, scheduled and unscheduled safety inspections at each jobsite to ensure that established safety procedures are being followed. Conducting such safety inspections demonstrates to workers a management commitment to enforcing its safety policies and procedures.

Recommendation #3: Employers should develop, implement, and enforce a comprehensive safety program that includes, but is not limited to, training workers in the proper methods of erecting and working from scaffolding.

Discussion: Employers should emphasize worker safety by developing, implementing, and enforcing a comprehensive safety program to reduce and/or eliminate worker exposures to hazardous situations. The safety program should include, but not be limited to, the proper methods for erecting and working from scaffolding.

Recommendation #4: Employers should provide appropriate fall protection equipment for all workers who may be exposed to a fall hazard.

Discussion: Employers should provide appropriate fall protection equipment for all workers exposed to fall hazards, and should provide worker training in the proper use of this equipment. Once this training is provided, employers should initiate measures to ensure the use of this fall protection equipment. A safety belt and lanyard would be appropriate fall protection equipment for use on scaffolding.

Return to In-house FACE reports

Last Reviewed: November 18, 2015