Nebraska FACE Investigation 96NE020

SUBJECT:

Window Washer Falls 40 Feet

SUMMARY:

A 41-year-old window washer fell approximately 40 feet to his death while washing windows on an office building. He was wearing fall protection at the time of the incident, however it was not adequate for the task being performed.

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

* Employers and employees must ensure an adequate personal fall arrest system is available and used for all tasks which subject an individual to a fall of more than six feet.

* Working surfaces should be kept free of any slipping hazards.

* Develop, implement and enforce a comprehensive safety program that includes, but is not limited to, training in all hazard recognition to include proper 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 June 15, 1996, at approximately 11:05 a.m., a 41-year-old window washer fell approximately 40 feet while washing windows on an office building. The Nebraska Department of Labor became aware of this fatality by the news media on June 17, 1996. The Nebraska FACE investigator accompanied an OSHA investigator to the incident site on June 17, 1996. An interview was conducted with the building administrator on site. An interview was also conducted with the victim's partner in the FACE office on June 17, 1996.

The victim was a partner in a window washing company which consisted of just two partners. This was the first fatality in the history of the company. The company has been in business for 15 years. The company did not have a written safety program.

INVESTIGATION:

The window washing company had a contract to clean the windows on this particular downtown office building. Both the victim and his partner had cleaned windows on this building periodically since April, 1995. This building has anchorages (attach points) for safety lanyards built into the window frames (see Figure 1). The victim was wearing a positioning harness at the time of the incident. He had two lanyards (approximately 40 inches each) attached to the same carabiner which was attached to the dee-ring on the rear of the harness (see figure 2). The other end of the lanyards were attached to the anchorages on the window frame with specially designed connectors. The steps normally used for cleaning this particular window involve first putting on the positioning harness and attaching the lanyards. Next, the window washer opens one of the side windows (see figure 1) which swings outward and attaches one of the lanyards to the anchorage on the window frame. Then he steps out onto the window ledge (17" wide at the widest point and 10" wide at the narrowest point - see figure 3). When he is on the ledge he then attaches the other lanyard to the anchorage on the other side of the window frame and then closes the open window. There are several anchorages on the window frame and when the

window washer needs to reposition himself he would disconnect at one anchorage and while still being attached to another anchorage, move and reattach the disconnected lanyard to another anchorage. After the washing is complete, he would open the window and step back in and then disconnect the lanyard from the anchorage.

The victim had washed several windows earlier in the day. When washing these windows he was wearing the positioning harness with the dee-ring in the front. He told his partner that the lanyards kept getting in the way so his partner assisted him in putting his harness on with the dee-ring in the back so the lanyards would not be in his way. The next window he washed was the one where the incident took place. The carabiner which attached the lanyards to the dee-ring was a single lock design. (See figure 4). It had a knurled section which screwed up to unlock the clasp and screwed down to lock it. It is quite possible that one of the nylon lanyards rubbed against the knurled section of the carabiner when the victim leaned backwards in the positioning harness or slipped off the ledge. This could have allowed the clasp to open and the end of one of the lanyards to slip out of the carabiner, and the carabiner to slip out of the dee-ring on the positioning harness, thus causing the victim to fall. After the victim fell, both the lanyards were still attached to the special attach points on the window frame. One of the lanyards had the carabiner attached to it. The victim was wearing the positioning harness with the dee-ring positioned in the back. Nothing was attached to the dee-ring after the victim fell.

When performing the site visit on the Monday following the Saturday incident, it was noted that the window ledge from which the victim feel was covered with a layer of pigeon dung approximately 1" thick. The area from which the victim fell showed where his feet slipped off the ledge. The presence of the pigeon dung could have adversely affected his footing, causing him to lose his balance and slip off the ledge. There were no witnesses, so exactly what happened is unknown.
The victim fell from the fourth story window ledge and traveled a distance of approximately 40 feet. He landed face down sustaining multiple head and internal injuries. The incident occurred at approximately 11:05 a.m. and he died at 11:27 a.m.

CAUSE OF DEATH:

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

RECOMMENDATIONS/DISCUSSION:

Recommendation #1: Employers and employees must ensure an adequate personal fall arrest system is available and used for all tasks which subject an individual to a fall of more than six feet.

Discussion: When working from elevations, adequate personal protective equipment (PPE) (in this case a personal fall arrest system) should be used by all workers exposed to fall hazards. It is a requirement of 29 CFR 1910.132(d) to perform hazard assessment and equipment selection. In this particular incident the equipment used was not the proper equipment for the job being performed. Working at a height of 40 feet, the victim needed a total personal fall arrest system. An adequate personal fall arrest system should incorporate a full body harness as well as a carabiner with a double lock so the "roll-out", which possibly happened in this incident, could not occur. Companies should consult safety specialists (in this case a fall protection specialist) to determine if their fall intervention methods are adequate.

Recommendation #2: Working surfaces should be kept free of any slipping hazards.

Discussion: The window ledge the victim was standing on was covered with pigeon dung and this could have affected the victim's footing. The ledges should be cleaned off prior to walking on them or a system should be developed to keep the pigeons and other birds off the ledge. It should be noted that a netting system has been installed on this building since the incident to keep birds off the ledge. This system had been planned before the incident occurred according to the building administrator.

Recommendation #3: Develop, implement and enforce a comprehensive safety program that includes, but is not limited to, training in all hazard recognition to include proper use of fall protection equipment.

Discussion: All companies, regardless of size, need to have a comprehensive safety program. Had this company established a written program they should have identified the proper fall protection equipment needed for each specific job.

REFERENCES:

Office of the Federal Register, National Archives and Records Administration, Code of Federal Regulations, Labor, 29 CFR 1910.132, 1995.

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