

FACE Investigation 91CO017

SUBJECT: Crane Operator Dies after Falling 14 Feet from Icy Embankment

SUMMARY:

A 65-year-old heavy equipment operator died from injuries sustained in a 14-foot fall. The crane operator had completed the task of lifting reinforcement rods and was attempting to assist coworkers in clean-up operations. As the victim walked onto an embankment, he lost his footing and fell. The embankment had a light cover of new-fallen snow and did not have any guardrails or protective barrier erected. The victim landed on a large rock at the base of the embankment. Co-workers immediately came to his assistance. CPR was initiated within one minute by certified personnel. The victim was transported to a local hospital where resuscitative attempts were unsuccessful. The Colorado Department of Health (CDH) investigator concluded that, in order to prevent future similar occurrences, employers should:

- \* implement 29 CFR 1926.104, which requires the use of safety belts, lifelines, and lanyards when working from elevations;
- \* consider and address worker safety in the planning phase of projects;
- \* develop, implement, and enforce a comprehensive safety program that includes, but is not limited to, training in fall hazard recognition and the use of fall protection devices;
- \* equip walkways with standard guardrails.

## INTRODUCTION:

On March 12, 1991 a 65-year-old heavy-equipment operator died of injuries sustained earlier that day when he fell 14-feet from an embankment. Under the terms of a cooperative agreement, the Occupational Safety and Health Administration (OSHA) Denver Area office, notified the Colorado Department of Health (CDH) of the death and an investigation was initiated. Representatives of the company were contacted. Reports were obtained from the local hospital, sheriff's department and the county coroner.

The employer in this incident is a large construction firm that has been in business for over 21 years. The company employs 300 workers, including 12 heavy-equipment operators. The company has a written safety policy and a designated full-time safety officer. Employee training is provided by the company and safety meetings are held weekly. The site supervisor had issued verbal warning of the slippery conditions that morning prior to work.

## INVESTIGATION:

On the morning of March 12, 1991, the victim had moved several loads of steel reinforcing rod at the worksite. Upon completion of crane operations, the victim walked to the area of a new box culvert being constructed. Access to the lower level was provided by a ladder placed at the end of an earthen embankment and a wooden walkway that had been laid from the embankment to the top of the box culvert. Neither the embankment or the walkway had protective barriers in place. As the victim walked onto the snow-covered embankment, he lost his footing and fell 14 feet. The victim landed on his back on a large rock. Two CPR-certified coworkers immediately began CPR and continued until the arrival of a local ambulance crew twenty minutes later. He was transported to the closest hospital where further resuscitative attempts were unsuccessful.

## CAUSE OF DEATH:

The cause of death was determined by autopsy as massive internal thoracic injuries, internal hemorrhaging, and a broken thoracic vertebrae.

## RECOMMENDATIONS/DISCUSSION:

Recommendation #1: Employers should implement 29 CFR 1926.104 which requires the use of safety belts, lifelines, and lanyards when working from elevations.

Discussion: Employers should provide personal protective equipment (PPE) (i.e., Safety belt, lifeline, and lanyard) to

employees exposed to fall hazards. Employers should provide and enforce the use of PPE in accordance with 29 CFR 1926.104. (1)

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

Discussion: Employers should emphasize the safety of their employees by developing, implementing and enforcing a comprehensive safety program. The safety program should include, but not be limited to, training workers in the proper selection and use of PPE, along with the recognition and avoidance of fall hazards.

Recommendation #3: Employers should address worker safety in the planning phase of all construction and maintenance projects.

Discussion: Worker safety issues should be discussed and incorporated into all projects during the planning and throughout the entire project. The planning for and incorporation of safety measures, prior to any work being performed at job sites, will help to identify potential worker hazards so that preventive measures can be implemented at the site.

Recommendation #4: Employers must provide walkways with standard guardrails when employees are required to cross over excavations. (29 CFR 1926.651)

Discussion: In this instance, employees routinely used the earth embankment as a egress route to the box culvert under construction. The embankment and wooden walkway did not have guardrails or restraining barriers in place.

#### REFERENCE

(1) Office of the Federal Register: Code of Federal Regulations, Labor 29 part 1926. July 1, 1991.

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