

Fatality Investigation Report

OR 2003-08-01

HISPANIC LABORER DROWNS AFTER FALLING INTO LANDSCAPING POND

SUMMARY

On May 2, 2003, a 23-year-old male Hispanic laborer drowned after falling into a landscape pond. At the time of the incident, the victim was standing on an incline at the edge of the pond and a coworker was working nearly directly above him on a steeply sloped access to the pond's edge. The victim was placing large rocks on the banks to prevent erosion and sediment accumulation in the pond. Immediately before the incident a wheelbarrow load of rocks had been delivered to the victim. Following the incident, the wheelbarrow was found lying on its side with the rocks strewn down the slope, towards the victim's position. According to the employer, the victim may have slipped at the waters edge and lost his footing while attempting to avoid being struck by falling rocks from the wheelbarrow.

As the victim was falling into the pond he reportedly reached out and grabbed the hand of his coworker and they were both pulled into the water. The coworker attempted to locate the victim, who was now under the water, but was unsuccessful. The employer stated that neither employee knew how to swim. The coworker managed to get out of the pond and went to a nearby house on the property to call 911. Local Fire and Rescue units arrived on scene but were unable to immediately locate the victim. Another fire district, with a dive team, located and recovered the body 47 minutes after the original 911 call. Resuscitation efforts were attempted, but were unsuccessful and the victim was pronounced dead at the scene by the Deputy County Medical Examiner.

RECOMMENDATIONS:

- ✓ Special precautions should be observed when working on or near the edge of the water. Grab lines, life preservers or rings, fall prevention or poles should be strategically situated or worn for immediate use. Workers should be instructed in basic water safety or lifesaving skills and should wear approved personal flotation devices.
- ✓ A competent person should inspect and evaluate the work site to identify hazards, and ensure that workers receive appropriate instructions in safe work procedures and the use of personal protective equipment.
- ✓ When working at a location that is more than 3-5 minutes response time for emergency medical services, workers should be trained in CPR, first aid, and basic emergency response skills.
- ✓ Consider alternative tools or equipment if work practices or the environment make standard equipment choices impractical or unsafe.

INTRODUCTION

On May 2, 2003, a 23-year-old male landscape worker died when he fell into a large residential decorative pond under development. The pond had been constructed by creating an earth berm at one end, in a narrow ravine. The sides of the ravine sloped down to the waters edge, at a steep incline. The victim either slipped or lost his footing and fell into the water. He had been placing rocks to prevent erosion on an inclined bank at the waters edge.

The OR FACE team was notified on May 5, 2003 and made contact with the employer. The property owner declined an onsite meeting. The interview with the employer was conducted off site on May 21, 2003. Additional documentation was obtained from the County Sheriff's Office and the Deputy Medical Examiner's report. This investigative report is based on documentation from the employer interview and review of the reports provided by those officials who were on the scene.

The employer is a landscape/development business that has been in operation for more than 7 years. The company performs landscape installation and construction services as well as lawn maintenance activities. The work is physical and strenuous. The company employs four full time workers, including three Hispanic and one non-Hispanic worker. According to the employer the production supervisor is Hispanic and speaks fluent Spanish. The employer does not speak Spanish, but over the years they have developed other means to effectively communicate job tasks. This was the employer's first fatality.

This employer does not have a formal written safety program or safety committee and there were no written procedures for the kind of work that was performed. Employees were made a part, however, of the discussions as jobs were reviewed and work practices developed at most projects. The employer stated that he ensures that his employees are comfortable with the tasks to be performed and if there is ever a question or concern for their safety in performing a task, he performs the task himself.

INVESTIGATION

According to other reports, the pond is earth-bermed at one end where it is approximately 12 feet deep. The pond slopes back to its shallowest point where it is approximately 4-5 feet deep. It is oval and approximately 75x100 feet in size. The sides of the pond itself are steep and nearly vertical. The victim was working with a co-worker positioning large rocks around the edge of the pond for protection from storm runoff and erosion. The coworker positioned, just above the victim, observed him slip or fall into the water. The coworker reported to have reached out for the victim, and he, too, was pulled into the water. The water was over both employees' heads, but the coworker managed to get out. Failing to locate the victim and not seeing any sign of him, the co-worker went for help. While running for assistance he looked back and is reported in the law enforcement report to have seen the victim splashing water on the surface of the pond. The work site is gated-access and was remote and isolated. The landscaping employer believes that from the pattern of the rocks strewn on the ground, it appears that the coworker may have lost control of the wheelbarrow and it tipped over, spilling rocks in the general direction of the victim. While attempting to avoid being struck by the rocks, the victim lost his balance and fell into the water, from his position at the ponds' edge.

The property owner is a building contractor and has worked for years with the landscaper on other projects. On the day of the incident the crew had completed assigned work on other projects and was then instructed to go this location to perform rototilling and other landscaping activities. However, when the rototiller and landscaping equipment did not arrive at the property as expected,

the building contractor gave instructions for the landscaping crew to lay some rip-rap (large rocks) around the edge of the pond to prevent erosion and sediment from filling the pond. The landscape employer was present when this departure from the original work plan of the day was presented to the workers. The crew had done this work in the past and both the property owner and employer considered this a continuation of previously started work. The employer reported that he had examined the site previously for hazards and had required his employees to wear safety positioning ropes while laying rocks at the pond's edge to prevent falls into the then empty pond. On the day of the incident the pond was full of water. The employer observed his employees working at or near the pond's edge, without the previously used and required safety positioning ropes.

Cause of death: The official cause of death was attributed to drowning, when the employee was pulled under the surface of the water when his knee high boots filled with water.

RECOMMENDATION/DISCUSSION

Recommendation #1: Special precautions should be observed when working on or near the edge of the water. Grab lines, life preservers or rings, fall prevention or poles should be strategically situated or worn for immediate use. Workers should be instructed in basic water safety or lifesaving skills and should wear approved personal flotation devices.

Discussion:

Neither of the employees performing this work could swim, according to the employer and law enforcement report. Working on or near the edge of the water was acknowledged to be a potential hazard. Grab lines, life preservers/rings, fall prevention or poles were not immediately available for use on the day of the incident.

Recommendation #2: A competent person should inspect and evaluate the work site to identify hazards, and ensure that workers receive appropriate instructions in safe work procedures and use of personal protective equipment.

Discussion:

Although the employer had examined the site on previous occasions and had required the employees to use equipment to prevent them from falling into the empty pond, the risk of injury from falling into the pond when full of water and drowning was not fully appreciated. Employees arrived expecting to rototill some land on the property. When the equipment did not arrive as expected, they were instructed by the property owner to place rock around the pond. Safety positioning ropes, which had previously been used by the workers, were available and the employer recognized that the instructions to the workers were different than for the work that had initially been planned. However they were not instructed to use the equipment to prevent falls into the pond. Evaluation of the work environment by a competent person who is capable of identifying existing and potential hazards and who is authorized to take prompt corrective action can minimize the injury risk when work tasks or site conditions change from those anticipated by the workers.

Recommendation #3: When working at a location that is more than 3-5 minutes response time for emergency medical services, workers should be trained in CPR, first aid, and basic emergency response skills.

Discussion:

In this instance drowning was a potential hazard and it was compounded by the location of work being isolated and remote, i.e., EMS response times would be in excess of 5 minutes and gated/locked access to the property. It is recommended that a person who is CPR/FA certified is immediately available on the site.

Of equal importance, an emergency plan that addressed worker access to emergency assistance could have been developed with the local Fire and Rescue units to minimize response times should an emergency develop. Such plans should include training employees to ensure that they have the ability and knowledge to call for emergency assistance when working in isolated and remote work locations. The plans should also be designed to eliminate language or other communication challenges that could be barriers to the implementation of prompt and effective emergency procedures.

Recommendation #4: Consider alternative tools or equipment if work practices or the environment make standard equipment choices impractical or unsafe.

Discussion:

The tipping of a heavily laden wheelbarrow on a steep incline may have triggered the employee's fall into the pond where he drowned. A four-wheeled cart or wheelbarrow may have provided greater stability on the inclined bank and therefore presented less risk to the workers

For More Information

The Center for Research on Occupational and Environmental Toxicology at Oregon Health & Science University performs Fatality Assessment and Control Evaluation (FACE) investigations through a cooperative agreement with the National Institute for Occupational Safety and Health (NIOSH), Division of Safety Research (DSR). 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.

Oregon Fatality Assessment and Control Evaluation (OR-FACE) Program

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