



Painter/Sandblaster Dies Following a 30-foot Fall from Scaffolding Inside a Water Tank--South Carolina

SUMMARY

A 48-year-old male painter/sandblaster (the victim) died of injuries received after falling 30 feet from a tubular welded frame scaffold. The victim was part of a three-man crew that was sandblasting the interior of a newly constructed water storage tank needed for fire fighting. In preparation to sandblast and spray paint the tank's interior, workers on the daylight shift (7 a.m. to 5 p.m.) had erected 2 separate 30-foot-high tubular welded frame scaffolding inside the tank. The victim and foreman were working the afternoon shift (5 p.m. to 3 a.m.) sandblasting the tank's interior walls, each working from an individual scaffold. A third crew member, the hole-watch, had been assigned ground duties which primarily consisted of getting supplies and assisting the sandblasters. At about 12:30 a.m. the following morning, the holewatch noticed that the victim had shut off his blast hose. A few minutes later, the foreman descended from the scaffolding upon which he was working and informed the holewatch he was ready to move his scaffolding. The foreman, after talking with the holewatch, wondered why the victim had stopped work and went looking for him. The victim was found lying injured and conscious, but incoherent, on the deck of the tank. The Emergency Medical Service (EMS) was called and arrived in less than 5 minutes. EMS personnel administered first aid and transported the victim 7 miles to the local hospital where he died 8 days later. NIOSH investigators concluded that, to prevent similar occurrences, employers should:

- *ensure that fall protection equipment is provided and used by workers where the potential for a fall from an elevation exists*
- *evaluate their current safety program and incorporate specific training procedures emphasizing the importance of recognizing hazards in the workplace, and following established safe work procedures with particular consideration to using appropriate personal protective equipment*
- *designate a competent person to conduct regular safety inspections.*

INTRODUCTION

On April 7, 1993, a 48-year-old male painter/sandblaster (the victim) was injured when he fell 30 feet from a scaffold. He died 8 days later, on April 15, 1993, as a result of the injuries he received in the fall. On April 22, 1993, officials of the South Carolina Occupational Safety and Health Administration (SCOSHA) notified the Division of Safety Research (DSR) of this fatality, and requested technical assistance. On May 13, 1993, a safety specialist from DSR investigated the incident and reviewed the circumstances with one of the two company owners and the SCOSHA compliance officer assigned to the case. Photographs of the incident site were taken, and the medical examiner's report was requested.

The employer in this incident was a commercial and industrial painting contractor that had been in operation for 14 years and employed about 100 workers, of which approximately 90 were painters/sandblasters. The employer had a written safety policy and a safety program which consisted

of job-specific safety procedures, a confined space entry program, a hazardous communication program, random drug testing, and a disciplinary program. Company management personnel were responsible for the enforcement of the safety program on a collateral-duty basis. The employer provided on-the-job training, and management personnel conducted toolbox safety meetings on a weekly basis. The victim worked for the company for 1 day as a painter/ sandblaster, but had approximately 20 years' experience working in this occupation. This was the first fatality the company had experienced.



INVESTIGATION

On the day of the incident, the victim arrived for his first day of work at about 4:40 p.m. The painting contractor had been hired by a paper processing plant to paint a metal, 40-foot-high by 40-foot-diameter water storage tank that had recently been constructed to store water for fire fighting. The contractor had rented tubular welded frame scaffolding to be used in completing the sandblasting and painting of the tank's interior. The daylight shift erected 2 separate 30-foot-high scaffoldings inside the tank in preparation for sandblasting during the afternoon shift.

The victim was picked up at the plant gate by the daylight foreman and given a site orientation which consisted of a review of basic safety rules for the paper processing plant (e.g., the need to wear eye and head protection within the plant) and location of the water storage tank. Following the orientation, the foreman spent 5 to 10 minutes with the victim discussing basic on-the-job safety rules, which included using personal protective equipment (e.g., safety belt, face shield, and blast hood). The victim was driven to the contractor's supply paint trailer (which was located on-site) and issued his blast hood, face shield, and safety belt and lanyard. Next, he was driven to the water tank and introduced to the afternoon foreman who was overseeing work at the water tank. Since the victim had approximately 20 years of experience, the afternoon foreman assumed he knew how to perform the job safely, and instructed him to start work. [Note: The victim apparently left the safety belt and lanyard that he had been issued in the daylight foreman's truck.]

At the time of the incident, approximately 12:30 a.m., the victim and foreman were each working from one of the 30-foot-high tubular welded frame scaffolds, sandblasting the interior wall of the tank. A third crew member, the holewatch, whose duties were restricted to ground activities, procured supplies and helped the sandblasters move the scaffolds. At about 12:35 a.m., the holewatch noticed that the victim had shut off his blast hose. A few minutes later, the foreman descended from the scaffolding upon which he was working, and informed the holewatch he was ready to move his scaffolding. The foreman, after talking with the holewatch, wondered why the victim had stopped work and went looking for him. He found the victim, lying injured and conscious, but incoherent, on the deck of the tank ([Figure](#)). The EMS responded in less than 5 minutes to the call for assistance, administered first aid, and transported the victim 7 miles to the local hospital, where he died 8 days later on April 15, 1993.

CAUSE OF DEATH

The medical examiner's report listed the cause of death as closed head injury.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Employers should ensure that fall protection equipment is provided and used by workers where the potential for a fall from an elevation exists.

Discussion: Employers should ensure by observation that fall protection equipment is being used. A lifeline for attaching a safety belt and lanyard was secured to the tanks' interior wall and was available during the incident; however, the victim apparently left the fall protection equipment he had been issued in the back of the daylight foreman's truck when he was driven to the worksite. The victim had approximately 20 years' experience in this occupation, and it was assumed he was aware of the need to wear fall protection equipment.

Recommendation #2: Employers should evaluate their current safety program and incorporate specific training procedures emphasizing the importance of recognizing hazards in the workplace, and following established safe work procedures with particular consideration to using appropriate personal protective equipment.

Discussion: In addition to developing a written safety program, employers should provide workers with appropriate training for the work they are to perform, and ensure they are proficient in job safety procedures before work begins. Such training should include recognizing hazards in the workplace, following established safe work procedures, and wearing appropriate personal protective equipment.



Recommendation #3: Employers should designate a competent person to conduct regular safety inspections.

Discussion: A competent person should conduct scheduled and unscheduled safety inspections of work sites to help ensure that established company safety procedures are being followed, and that appropriate personal protective equipment is used. Such inspections also demonstrate that the employer is committed to the company safety program and to the prevention of occupational injury.

