Bridge Painter Dies In Fall While Working on Massachusetts Bridge

SUMMARY

On May 27, 1993, a 44 year old, male bridge painter fell approximately 134 feet to his death from a Massachusetts bridge. The victim was apparently aiding in the retrieval of a suspended cable running along the bridge when he fell from outside the bridge's suicide barrier at the highest center span of the bridge. At the time of the incident the victim was wearing a safety belt and lanyard, but his lanyard was not tied off to an anchorage point, and neither was a safety net employed. Once he was retrieved from the canal by boat, the victim was given CPR. Awaiting emergency medical personnel administered subsequent emergency treatment when the boat reached shore. The victim was then transported to the regional hospital where he was officially pronounced dead one hour following the fall. The Massachusetts FACE Program concluded that to prevent similar future occurrences, employers should:

- **develop and implement a comprehensive safety program that includes training workers to identify and avoid jobsite hazards;**
- **provide the personal protective equipment that is necessary on a high hazard jobsite, and ensure that the equipment is properly maintained and used.**

Additionally, government agencies should:

- **include fall protection provisions in their bid specifications when seeking private contractors to perform bridge work;**
- **explore the feasibility of reviewing the safety history of firms when awarding contracts.**

INTRODUCTION

On May 28, 1993, the state medical examiner's office and a municipal police patrolman both notified the Massachusetts FACE Program through its 24 hour fatality hotline that a 44 year old bridge painter died in a fall from a Massachusetts bridge on the previous day. An investigation was immediately initiated.

On June 1, 1993, the MA FACE Program Field Investigator travelled to the incident area, and interviewed municipal police department officials, regional state police personnel and the employer. The death certificate, municipal police report, state police report, assorted newspaper clippings and multiple photographs were obtained during the course of the investigation.

The employer was a Florida based sandblasting and structural steel painting company which had been in business for approximately 12 years. The company was comprised primarily of Greek immigrants. Depending on the number of active jobsites, the company typically employed ten to twenty people; half to three quarters of these held the same title as the victim.

The crew on site at the time of the incident included the company owner and four employees, one of whom was the victim. The company was contracted to sandblast and repaint the bridge's structural steel and had been on the jobsite approximately one month and fifteen days. The company owner claimed to be the designated safety officer. He devoted varying amounts of his time to safety. There were no written safety policies or procedures in place for any tasks at the time of the incident.

The victim, who was a Greek immigrant, was a personal friend of the company owner. He had been trained on the job and was employed only 10 days on this project at the time of his death.

INVESTIGATION

On May 27, 1993, a sandblasting and structural steel painting company, contracted to repaint the under side of a Massachusetts bridge, completed the sandblasting phase of its project.

At approximately 3:45 p.m., the victim went to the company office trailer located beneath the bridge to get a cup of coffee and a pick-up truck. He told the company owner that he planned to drive back up to the top of the bridge to collect some cables that had earlier been removed from service. These cables were strung along and beneath the bridge to support personnel safety netting and tarpaulins to capture fallout from sandblasting operations which would otherwise illegally contaminate the canal and environment below. Appraised of these plans, the company owner instructed the victim that he was not to go back onto the bridge because the police traffic detouring detail had left for the day and traffic could not be safely directed.

According to one co-worker, the victim ignored the wishes of the owner and appeared back on top of the bridge where he volunteered to assist his crew members with the cables. At some time soon thereafter, another co-worker witnessed the victim on the outer side of the bridge's suicide barrier. At this point the victim was observed to be aiding crew members on top of the bridge in the retrieval of a still suspended and potentially problematic cable. This co-worker also claimed that, although personnel routinely wore safety belts and lanyards, the lanyards were not secured to an anchorage point or structural member capable of preventing a fall at the time of the incident.

Although none of the crew members witnessed the actual fall, two bystanders below the bridge did. A young girl who was watching a child reported that she had noticed the victim on the outside of the bridge's suicide barrier and the three co-workers above him on the bridge's sidewalk. Immediately prior to his fall, the girl claimed that the victim was standing in place, leaning back and holding onto the still partially suspended cable. She reported that as a large tractor trailer hauling wood or lumber passed overhead, the victim fell approximately 134 feet to the canal below, perhaps the result of being startled or jolted from his position. This concurs, in part, with the statement of the other bystander who also witnessed the event from below the bridge.

Immediately after seeing the victim floating motionless in the canal below, one of the co-workers on top of the bridge solicited a ride from a passing motorist to summon emergency responders. Spotted by state police helicopter personnel, the victim was retrieved by boat down wind one-half hour following the fall. CPR was immediately administered followed by more advanced medical treatment once the victim was brought ashore. The victim was transported to the area medical center where he was officially pronounced dead approximately one hour following the fall.

CAUSE OF DEATH

The medical examiner listed the cause of death as multiple injuries.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Employers should develop and implement a comprehensive safety program that includes training workers to identify and avoid jobsite hazards.

Although the company had a designated safety officer, it did not have a written safety plan nor established safety procedures. Employers should protect the safety of their employees by developing, implementing, and enforcing a comprehensive safety program that includes, but is not limited to training workers in the recognition and avoidance of fall hazards, along with training in the proper selection and use of personal protective equipment.

Furthermore, a comprehensive training program should motivate a safety consciousness among coworkers. It is important that employees look out for each other, ensuring that sound safe work practices are followed by all. Daily, weekly, and/or monthly safety meetings which are conducted by a designated safety person and cover such vital areas as fall protection and personal protective equipment constantly remind employees of the dangers associated with their occupation(s) and how best to deal with them.

Recommendation #2: Employers should provide the personal protective equipment that is necessary on a high hazard jobsite, and ensure that the equipment is properly maintained and used.

Although employees were provided with, and wore, safety belts and lanyards, it is unfortunate that the victim's lanyard was not tied off to an appropriate anchor at the time of the incident. OSHA Standard 29 CFR 1926.104 (b) specifically requires that safety belts, lifelines and lanyards used for employee safeguarding be secured above the point of operation to an anchorage or structural member capable of supporting dead weight of 5,400 pounds. Employers should establish procedures for use of fall protection equipment, and they should ensure that workers follow these established procedures when required. Proper use of the provided fall protection equipment may have prevented this worker's death.

In addition to safety belt, lifeline and lanyard requirements, OSHA Standard 29 CFR 1926.106 requires that employees working above or near water, where the danger of drowning exists, be provided with U.S. Coast Guard approved life jackets or buoyant work vests. Although the victim died of multiple injuries sustained in the fall, it is conceivable that had he survived the fall, he would have drowned. Bridge workers should be provided with, and wear personal floatation devices (PFDs), when they are working where the danger of drowning exists. PFDs are particularly important when safety nets are not in use. OSHA Standard CFR 1926.106 further requires that a life saving skiff be immediately available when workers are working near or above water.

Recommendation #3: Government agencies should include fall protection provisions in their bid specifications when seeking private contractors to perform bridge work.

Frequently government agencies are required to award contracts for public work projects to the contractor with the lowest bid. This rule undermines health and safety conditions on the job because compliance with safety standards can be costly. To win a bid in tight economic times, employers are encouraged to cut corners where they can. By requiring contractors to include fall protection provisions in their bids for bridge work (and other public works projects), the cost of safety can be explicitly incorporated into government funded projects.

Recommendation #4: Government agencies should explore the feasibility of reviewing the safety history of firms when awarding contracts.

Although there was no evidence that the employer had a history of violating safety standards, government agencies should investigate the feasibility of reviewing contractors' records of compliance with federal and state safety standards when awarding bids. This procedure could help to identify the contractors with the best, and worst, safety records. Awarding contracts to the firms with good safety histories could reduce the potential for future workplace tragedies by creating safer work sites and by encouraging firms with poor safety records to implement safe work practices.

REFERENCES

1. Office of the Federal Register: Code of Federal Regulations, Labor 29 Parts 1926.104 (1992), 1926.106 (1992)

To contact Massachusetts State FACE program personnel regarding State-based FACE reports, please use information listed on the Contact Sheet on the NIOSH FACE web site Please contact In-house FACE program personnel regarding In-house FACE reports and to gain assistance when State-FACE program personnel cannot be reached.