



The National Institute for Occupational Safety and Health (NIOSH)

NIOSH > Workplace Safety and Health Topics
> Fatality Assessment and Control Evaluation(FACE) Program > State FACE Reports



A Spanish Speaking Roofer Dies After Falling From a Roof of a Residential Structure

Massachusetts Case Report: 02-MA-030-01

Release Date: March 26, 2004

Summary

On October 10, 2002, a 30-year-old Guatemalan male roofer was fatally injured when he fell from a residential structure roof. The roofing crew, including the victim, were installing a tarp from a ladder jack scaffold when the victim climbed onto the roof. The victim, who spoke Spanish, was reportedly told twice in Spanish by his foreman to get off the roof. The victim then fell approximately 30 feet to the ground below, landing on a cobblestone walkway. Emergency Medical Services (EMS) were notified and responded to the incident site within minutes. The victim was transported to a local hospital where he was pronounced dead. The Massachusetts FACE Program concluded that to prevent similar occurrences in the future, employers should:

- **develop, implement and enforce a comprehensive written safety and health program that includes, but is not limited to, a fall protection plan that addresses worker protection during scaffold erecting and dismantling**
- **routinely have a competent person conduct hazard analysis of the work site and of employees tasks and revise safety and health programs and training to address identified hazards**
- **ensure that all workers who are part of a multilingual workforce comprehend training instructions in safe work procedures for all tasks to which they are assigned**
- **enforce safety and health regulations and company policies by periodically performing scheduled and unscheduled inspections of employee work practice**

Introduction

The employer was a roofing contractor who had been in business approximately 30 years at the time of the incident. Company-wide, they employed approximately 27 individuals, of whom the majority were either carpenters or roofers. The company had five work crews. One of these crews was a “bilingual” crew, in which the supervisor spoke both fluent Spanish and English. Most of the crew members assigned to the bilingual crew, including the victim, spoke Spanish as their first language and spoke very little English. The victim, an emigrant from Guatemala, had been employed with the company for approximately two weeks at the time of the incident, but he had over two years of experience as a roofer with another company in Massachusetts.

The company owner was the designated person in charge of safety. Prior to the incident, the company did not have a written safety program and did not provide employees safety training. Since the OSHA investigation, the company has developed a written safety program and sent employees to safety training classes. The company was a member of a national and a local roofing association. Employees had no union representation at the company.

[Back to Top](#)

Investigation

The bilingual work crew to which the victim had been assigned consisted of four employees, one foreman, two roofers, including the victim, and one laborer. All work crews used a buddy system, where they paired up each new employee with a more experienced employee. All new employees were required to stay on the ground until their buddy thought that they were ready for roof work.

The construction site was a residential house in a residential neighborhood. The house was an older structure that was approximately 30 feet high (two and a half stories). The company had been hired to replace a section of the house’s roof. This roof section had a dormer window and a 10 pitch. The day of the incident was the crew’s first day onsite. The crew arrived at the work site and set up extension ladders, ladder jacks and staging, and a tarp ([Figure 1](#)). The tarp was canvas and hung over the side of the house to limit the damage to the side of the house during the removal of the old asphalt roof shingles.

While finishing installing the tarp, the employer stated that the victim climbed onto the roof. Both the company owner and the crew foreman reported that the victim was told two times in Spanish to get down from the roof. Once on the roof, it was reported that the victim started to walk along the roof towards a valley, the location where a dormer protrudes from the roof ([Figure 2](#)). When the victim was approximately two feet away from the valley, he lost his balance and fell approximately 30 feet to the walkway below.

A call was placed by one of the work crew members, via cell phone, for emergency assistance, which responded to the incident site within minutes. The victim was transported to a local hospital by a neighboring town’s emergency medical services ambulance, where he was pronounced dead.

During the investigation, the company owner reported that harness and lanyards were available for employees at each project location. It was also reported that no fall protection was typically used while performing the tasks of setting up ladders, pump jacks, staging, tarps, and toe boards, and that fall protection is used for all succeeding tasks except for dismantling the equipment. After the incident, the employer had all employees go back to the office where they discussed the incident. During this discussion, the employer offered grief counseling, but none of the employees expressed interest. In addition, the employer gave all employees the following three days off work.

[Back to Top](#)

Cause of Death

The medical examiner listed the cause of death as blunt force head trauma.

[Back to Top](#)

Recommendations/Discussion

Recommendation # 1: Employers should develop, implement and enforce a comprehensive written safety and health program that includes, but is not limited to, a fall protection plan that addresses worker protection during scaffold erecting and dismantling.

Discussion: In this case, the work location was a residential construction site and a ladder jack scaffold was going to be used to replace a section of the roof's shingles. The employer did not have a written safety and health program and the employer reported that employees did not use fall protection during ladder jack scaffold erection, tarp installation, and slide guard installation.

Employers should develop, implement and enforce a written safety and health program that contains a fall protection plan. A summary of OSHA's draft proposed safety and health program rule, which discusses employee training, has been included at the end of this report.

Employers should ensure that the company's fall protection plan meets OSHA requirements for fall protection in residential and/or commercial construction. OSHA's fall protection standard requires employees engaged in residential construction activity six feet or more above a lower level be protected by fall protection (1926 Subpart M). When working from scaffolding, OSHA's scaffold standard (1926 Subpart L) states workers on ladder jack scaffolds are to be protected by a personal fall arrest system at heights over 10 feet. OSHA also requires that when erecting and dismantling scaffolding, including ladder jack scaffolding, fall protection should be provided to employees, unless the employer can successfully show, through a competent person, that a greater hazard exists as a result of using the fall protection.

In the rare cases where OSHA might agree that greater hazards exists when using fall protection during erecting scaffolding, employers should ensure that employees are protected from falling once the scaffold setup is complete and prior to starting other tasks. In addition, the installation and removal of tarps or other sheeting materials is not considered part of the erection or dismantling of scaffolding; therefore, fall protection must be used during this task.

Recommendation # 2: Employers should routinely have a competent person conduct hazard analysis of the work site and of employees tasks and revise safety and health programs and training to address identified hazards.

Discussion: A hazard analysis is a way of focusing on work site and job tasks to identify hazards to which employees might be exposed. Hazard analyses should be performed at each work location prior to the beginning of each work shift and throughout the project, to identify potential and known hazards. Employers should have a competent person conduct these hazard analyses with employees' assistance.

Recommendation # 3: Employers should ensure that all workers who are part of a multilingual workforce comprehend training instructions in safe work procedures for all tasks to which they are assigned.

Discussion: Employers should design, implement, and enforce a multi-language safety training program. The safety training program should be developed at the literacy level that corresponds with the literacy level of the company's workforce. The employer may need to consider providing special safety training to workers with low literacy to meet their safety responsibilities.

In this case, the safety training should include, but not be limited to, how to properly use fall protection and when to use fall protection ([recommendation #1](#)), such as when erecting and dismantling scaffolding.

Recommendation # 4: Employers should enforce safety and health regulations and company policies by periodically performing scheduled and unscheduled inspections of employee work practices.

Discussion: Employers must ensure that all employees have a safe work environment and that the employees follow safety and health standards and company policies. This becomes more challenging when the employer is a contractor and the work sites continually changes with each project. Employers should enforce safety and health standards and the company's safety and health policies by periodically monitoring employees work practices. This can be accomplished by the employer routinely conducting scheduled and unscheduled work site inspections and addressing any reported or observed unsafe practices.

[Back to Top](#)

Illustrations

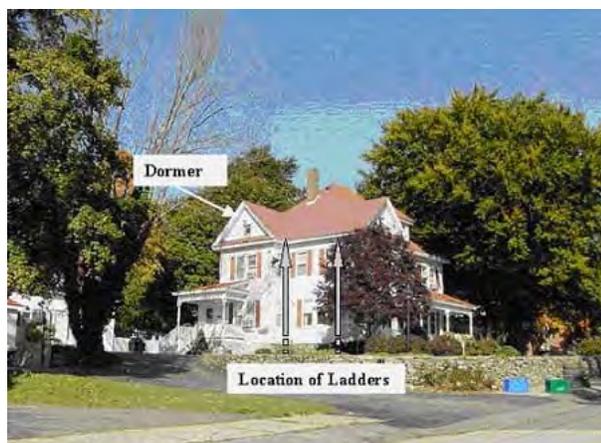


Figure 1 – Incident Location



Figure 2 – Victim's location prior to the fall

[Back to Top](#)

References

1. Code of Federal Regulations. 29CFR1926.501, Safety and Health Regulations for Construction, Safety training and education, U.S. Government Printing Office, Office of the Federal Register, Washington, D.C.
2. Code of Federal Regulations. 29CFR1926.451, Safety and Health Regulations for Construction, Safety training and education, U.S. Government Printing Office, Office of the Federal Register, Washington, D.C.
3. Code of Federal Regulations. 29 CFR 1926.21, Safety and Health Regulations for Construction, Safety training and education, U.S. Government Printing Office, Office of the Federal Register, Washington, D.C.
4. OSHA. Standard Interpretations 7/7/2003 – Requirements for fall protection when ladder jack scaffolds are used for residential and commercial construction.
5. NIOSH. Worker deaths by falls: a summary of surveillance findings and investigative case reports. Cincinnati, OH: U.S. Department of Health and Human Services, Public Health Services, Center for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Pub. No. 2000-116.

[Back to Top](#)

Attachment

Summary Of OSHA'S Draft Proposed Safety and Health Program Rule For Employers (29 CFR 1900.1 Docket No. S&H-0027)*

<https://www.cdc.gov/niosh/face/stateface/ma/02ma030.html#note>

Core elements

- Management leadership and employee participation
- Hazard identification, assessment, prevention and control
- Access to information and training
- Evaluation of program effectiveness

Set up a safety and health program, with employee input, to manage workplace safety and health to reduce injuries, illnesses and fatalities.

Ensure that the safety and health program is appropriate to workplace conditions taking into account factors such as hazards employees are exposed to and number of employees.

Establish and assign safety and health responsibilities to an employee. The assigned person must have access to relevant information and training to carryout their safety and health responsibilities and receive safety and health concerns, questions and ideas from other employees.

Employee participation

Regularly communicate with employees about workplace safety and health matters and involve employees in hazard identification, assessment, prioritization, training, and program evaluation.

Establish a way and encourage employees to report job-related fatalities, injuries, illnesses, incidents, and hazards promptly and to make recommendations about appropriate ways to control those hazards.

Identify and assess hazards to which employees are exposed

Conduct inspections of the workplace at least every two years and when safety and health information change or when a change in workplace conditions indicates that a new or increased hazard may be present.

Evaluate new equipment, materials, and processes for hazards before introducing them into the workplace and assess the severity of identified hazards and rank those hazards that cannot be corrected immediately according to their severity.

Investigate safety and health events in the workplace

Thoroughly investigate each work-related death, serious injury, illness, or incident (near miss).

Safety and health program record keeping

Keep records of identified hazards, their assessment and actions taken or the plan to control these hazards.

Hazard prevention and control

Comply with the hazard prevention and control requirements of the OSHA standards by developing a plan for coming into compliance as promptly as possible, which includes setting priorities and deadlines for controlling hazards and tracking the progress.

Information and training

Ensure each employee is provided with safety and health information and training.

Safety and health training must be provided to current and new employees and before assigning a job involving exposure to a hazard. The training should be provided routinely, when safety and health information is modified or a change in workplace conditions indicates a new or increased hazard exists.

Program evaluation and maintenance

Evaluate the safety and health program at least once every two years or as often as necessary to ensure program effectiveness.

Revise the safety and health program in a timely manner once deficiencies have been identified.

Multi-employer workplaces

The host employer's responsibility is to provide information about hazards and their controls, safety and health rules, and emergency procedures to all employers at the workplace. In addition, the host employer must ensure that assigned safety and health responsibilities are appropriate to other employers at the workplace.

The contract employer responsibility is to ensure that the host employer is aware of hazards associated with the contract employer's work and how the contract employer is addressing them. In addition, the contract employer must advise the host employer of any previously unidentified hazards at the workplace.

* Date issued November 23, 1998. Full text available on
<https://www.osha.gov/dsg/topics/safetyhealth/nshp.html> 
(<https://www.osha.gov/dsg/topics/safetyhealth/nshp.html>) (Link updated 3/20/2013)

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.

Massachusetts Case Reports (<http://www.cdc.gov/NIOSH-FACE/Default.cshtml?Category=0000&Category2=ALL&State=MA&Submit=Submit>)

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