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**TO:** Director, National Institute for Occupational Safety and Health

**FROM:** California Fatality Assessment and Control Evaluation (FACE) Program

**SUBJECT:** Plumber electrocuted while working in a crawlspace in California

***SUMMARY*****California FACE Report #CA92003  
April 15, 1993**

A 56-year-old black male plumber (victim) was electrocuted while doing plumbing repair work underneath a residential home. The victim had been hired by a general contractor to do plumbing repair work at this residence. The contractor had hired the victim on other occasions to do plumbing work for him. The victim was discovered by the contractor at 12:30 pm on Friday April 3, 1992. The contractor stated that the victim was unresponsive when he called to him and that he was located in a crawl space beneath a house. The contractor called 911, and fire department personnel responded and removed the victim from under the house. The California FACE investigator concluded that in order to prevent future similar occurrences, employers should:

- develop a written and documented safety plan so that employees are not exposed to hazardous or unsafe conditions.
- conduct initial jobsite surveys to identify all hazards associated with each specific jobsite, and develop specific methods of controlling the identified hazards.
- inspect all handtools and extension cords on a regular basis.

## INTRODUCTION

On April 3, 1992, a 56-year-old black male plumber was electrocuted while working in a crawlspace beneath a house. Notification of the incident was obtained from the California Occupational Safety & Health Administration (Cal/OSHA) office on April 6, 1992. The victim had been working on and off for the contractor over the past few years. He had been given a job at this location to do plumbing repair work on a residential home which was being renovated. The victim was last seen alive at 9:00 am by the contractor. The contractor returned at 12:00 pm and found the victim under the house and unresponsive. He immediately dialed 911, and fire department personnel responded to his call. They pulled the victim out from the crawlspace and he was pronounced dead at 12:44 pm.

## INVESTIGATION

The contractor stated that the victim was a private contractor and therefore would not grant the California FACE investigator an interview, however, police officers were able to conduct an interview and the California investigator obtained a copy of their report. The contractor stated that the victim was working for him on and off over the past few years. He also stated that the victim was a plumber by trade and that he had given him a job at this location to do the plumbing repair work. Police officers first observed the victim with a white sheet covering him, and an orange electrical cord beneath his body.

The investigator from the coroner's office conducted her investigation and observed burn marks to the left ear and neck, and multiple burns to the upper back. She also observed, while looking in the area where the victim was believed to be working, a metal work type light with a clip attachment and a black power cord that was not plugged in. There were other items observed by the coroner's investigator including what appeared to be a pipe cutting tool, a relatively long section of PVC type black pipe, and a large number of assorted items and rubbish. She stated that the ground below the house was wet due to either the recent rains or leakage from plumbing fixtures in the residence above. She noted an orange extension cord that had been plugged in just inside the back door of the duplex. This cord ran into the crawlspace and a short distance into the duplex. She examined this cord and though it appeared to have been patched in several different places along its length did not observe any burned, charred or melted-appearing areas. This cord was removed from the scene while the coroner's investigator was observing the body. It was not clear who was responsible for removing the cord or where it went.

**CAUSE OF DEATH**

The Medical Examiners Report stated the cause of death as electrocution due to electrical injuries the victim sustained from an electric wire-cord.

**RECOMMENDATIONS/DISCUSSION**

**Recommendation #1: A written Illness/Injury Prevention Plan should be implemented and maintained so that employers and employees work in an environment which is both safe and healthy.**

Discussion: This incident may have been prevented if an Illness/Injury Prevention Plan had been maintained. Under Title 8 of the California Code of Regulations (CCRs) section 1509 (a) employers must maintain and document an Injury & Illness Prevention Plan.

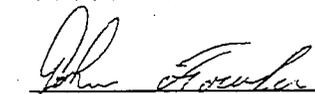
**Recommendation #2: Employers should conduct initial jobsite surveys to identify all hazards associated with each specific jobsite and develop specific methods of controlling the identified hazards.**

Discussion: Before the start of any work, employers should comply with the Occupational Safety & Health Act (OSHA) construction safety standard 29 Code of Federal Regulations (CFRs) section 1926.416 (a) (3) [1] by conducting initial jobsite surveys to identify potential situations for employee contact with energized electrical circuits.

**Recommendation #3: Employers should inspect handtools and extension cords on a regular basis.**

Discussion: Employers and employees should visually inspect handtools and extension cords on a daily basis. Potentially damaged items such as an extension cord (which was attributed to the Medical Examiners' stated cause of death in this incident) should be replaced.

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Safety Investigator

  
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FACE Project Officer

April 15, 1993

