

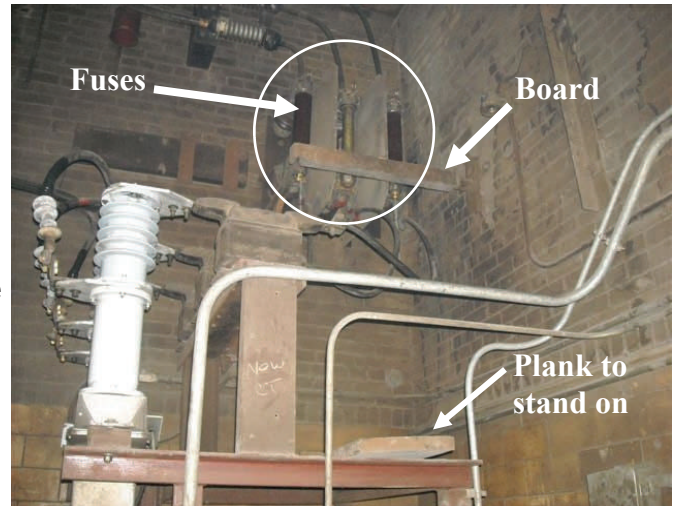


HAZARD ALERT

**Electrical
and
Work
Organization
Hazards
Cause
Injuries
To a
USW
Member**

A worker in the maintenance department received a severe electrical shock and suffered critical burns when he was directed by a supervisor to, “put up fuses on the board” of a 13,200-volt fuse block assembly. The worker was a mechanic and not trained or experienced for work as an electrician. The 400-amp fuses, which had a history of blowing, are part of the main electrical power supply located in an unlocked electrical vault.

The maintenance department had been downsized and “multi-craft” job combinations created additional workplace hazards. The facility did not have a means to isolate the main electrical incoming power upstream from the vault. Electrical PPE, working live line tools, proper training and procedures were not provided for employees who performed servicing and maintenance in the high voltage electrical vaults.



Recommendations to Prevent Recurrence:

- Install electrical equipment to isolate the main incoming electrical power to eliminate the exposure of working on or around energized parts. Employers must not rely on the power company always being available for power isolation.
- Increase maintenance staffing to ensure “qualified” employees are available to perform electrical work and cover any employee absences.
- Provide adequate training to hourly and salary personnel on Electrical Safety-Related-Work-Practices and NFPA 70E—Standard for Electrical Safety in the Workplace. The training must also cover employees job-related assignments, including their own limitations, such as: the maximum allowable approach distances to energized parts, familiarity with the proper PPE and shielding materials, proper use of test equipment, methods to distinguish energized parts from other parts of electrical equipment, etc.
- Perform a Shock and Arc Flash Hazard Analysis and use electrical PPE per NFPA 70E Hazard/Risk Categories.
- Provide and maintain the proper electrical tools for the job-related tasks.
- Provide and maintain the proper electrical PPE for the specific parts of the body to be protected and for the work being performed, such as pulling and replacing power fuses and substation voltage testing. (This work should have been assessed by the employer as Hazard/Risk Category 4 per NFPA 70E).



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The information provided in this alert is based on preliminary data only and does not represent final determinations pertaining to the nature of the incident or conclusions regarding the cause of this event. Contact the USW for further information or assistance in addressing hazards in your workplace.