

# Caution Bulletin

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**Title:** Breaker Trip due to Vending Machine Service Call

**Date:** March 13, 2006

**Identifier:** 2006-RL-HNF-0005

**Lessons Learned Summary:** Subcontracts issued to vending machine companies need to include adequate safety provisions/requirements related to performing maintenance work on their equipment/machines when the equipment is located at a Department of Energy facility.

**Discussion of Activities:** On the afternoon of 11/29/05, employees of a vending machine company were attempting to investigate a problem with a cold food vending machine. While the machine was energized, a protective cover was removed to allow access to repair a limit switch. During this process a nut driver apparently contacted an exposed electrical contact which tripped the facility breaker supplying power to the vending machine. The trip apparently occurred due to a short; however neither vendor employee was injured.

The machine was unplugged. The two vendors filled out a statement at the request of the Building Emergency Director (BED). The Fluor Hanford (FH) Lock & Tag Interpretive Authority was consulted and it was determined that the incident was not reportable from a lock and tag perspective, or as a PFP-specific event, but contractual issues might warrant a site-level management concern being reported. The issue was turned over to the Contracts group and the Central Occupational Safety and Health group for review. The vendors were allowed to remove the food from the vending machine but were not allowed to re-energize the machine. It was confirmed that the machine was in a safe configuration (unplugged) and the breaker was reset.

**Analysis:** Although the FH contract with the vendor included Special Provision (SP)5 requirements, it did not contain an Statement of Work or address specific safety issues related to maintenance conducted by the vendor. Due to the low risk presented by the contract, management believed that this approach was procedurally and contractually acceptable. The contract did not identify a Buyers Technical Representative (BTR) or other field Point of Contact (POC) and did not require the vendor to notify FH prior to performance of equipment maintenance. In addition, the vendor required the unit be de-energized by an internal switch before removing an access cover from the stop pin housing to adjust the stop pin. This was also in accordance with the vending machine operating manual provided by the manufacturer of the vending machine. The performance of this work although consistent with vending industry standard, did not comply with FH requirements. On the Hanford Site, servicing or maintaining of energized electrical components is performed within the limited approach boundary which requires more stringent controls that are utilized in industry. The preferred practice is to de-energize the circuit either by unplugging the unit, or by opening an appropriate disconnect or circuit breaker and applying a worker's lock and Danger Tag. Work on energized components is done only when no other option is available.

**Recommendations:** FH evaluated the processes in place that provide direction and control to

vendors for similar services involving electrical maintenance. The evaluation concluded that the contracts reviewed contained the proper safety requirements for repair and maintenance in the Statement of Work and the applicable terms and conditions. Notifications, required prior to performing repair and maintenance, were also adequate.

FH will perform a broader review of vendors providing similar services and will look for similar issues regarding direction and control. Any contract found to require additional safety requirements for repair and maintenance will be revised to include the appropriate terms and conditions as well as Statement of Work requirements.

FH will require Automat to review their policies and procedures for alignment with FH expectations with the revised Statement of Work and any terms and conditions deemed appropriate for inclusion in their contract. A statement of work is being developed to identify for Automat the normal activities and the maintenance and repair that will be allowed or not allowed.

FH posted the names and phone numbers of the facility POC on each vending machine. The Building Administrators will be required to maintain the postings current. This will be disseminated to the Building Administrators in Building Administrator training. In addition, Automat will be required by its Statement of Work to obtain the appropriate labeling prior to installing a new machine in a building.

Roles and responsibilities of the facility POC's will be defined by Safety and Facility Management when contacted by a vendor to perform maintenance. This will be defined by Facilities and Land Management and the Safety SME for the facilities based on the critique and the occurrence report description of apparent cause and the Hanford Site requirements that apply to such an event. This definition will be included in the Facility Administrator (POC) training.

**Estimated Savings/Cost Avoidance:** Not determined

**Work Function:** Maintenance - Electrical

**Hazards:** Electrical

**Keywords:** electrical, circuit breaker, lock and tag, subcontractor/vendor, statement of work

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**References:** Occurrence Report: RL-PHMC-GENERAL-2005-0008

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