

Project Hanford Lessons Learned

Title: Poor Communication Leads to Overhead Power Line Strike/Near Miss

Date: December 20, 2005

Identifier: 2005-RL-HNF-0044

Lessons Learned Summary:

Poor communications between responsible parties can lead to serious injury or fatality. The process for safety oversight of delivery supplier personnel relies on an individual in the field providing oversight while work is being performed. Communication between supplier and a designated point of contact (POC) must take place to ensure the required oversight is provided. If equipment contacts overhead lines, whether the lines remain in place or fall down on the equipment, the operator should assume they are energized, stop the vehicle, and REMAIN In PLACE!

A DOE Safety Alert “Preventing Contact with Overhead Lines” recommends additional requirements to prevent the contacting of overhead power lines by equipment when performing Environmental Management work.



Adobe Acrobat
7.0 Document

DOE Safety Alert

Discussion of Activities:

Three loads of gravel were scheduled to be delivered to Fluor Hanford (FH) Solid Waste Storage and Disposal (SWSD) work site. The work site had been walked down by Engineering and Maintenance personnel and an overhead power line was identified as a potential hazard. The Person in Charge (PIC) was at the work site when the first truck arrived. The driver was instructed to dump the load so that the truck was headed away from the single overhead power line in the area. The PIC acted as a spotter during the work. After the first truck left the area, the PIC went to the SWSD Administrative trailer to contact the Maintenance Lead.

Approximately fifteen minutes after the first truck left the work site the second truck arrived. The PIC had not yet returned to the work site. The second driver proceeded to the site without contacting any facility personnel prior to commencing the evolution. The second driver dumped his load driving toward the electrical line, rather than away from it. A SWSD Operations Lead was driving by and recognized that the driver was about to contact the overhead power line with the raised truck bed. He signaled the driver to stop but the bed of the dump truck had already contacted the overhead line. The driver then exited the vehicle without waiting for the line to be de-energized but was not injured. Neither the driver nor the SWSD Lead adequately recognized the potential hazards associated with exiting a vehicle or equipment cab following contact with an overhead power line.



The area was promptly cordoned off by SWSD personnel and personnel were notified of the hazard. Electrical Utilities was contacted and confirmed that the line was a 240 volt power line. The line was de-energized by Electrical Utilities and the truck was moved away from the line. Electrical Utilities repaired the line and restored power

Analysis:

Several weaknesses and gaps were identified in the process that would ensure contact is made between the supplier and the facility POC. The process contained three control points. Each of the control points relied on verbal communication and allowed a single point failure to occur. Roles and responsibilities were confusing, not well integrated, and were not defined.

Acquisition, Safety, and Badging documents all assigned related responsibilities but used different terminology. Individuals expected to carry out the responsibilities would not typically read the documents where the expectations are located. Acquisition processes did not adequately address the function of the Point of Contact during these types of deliveries in any document for which the Points of contact were responsible.

No specific training was provided for the POC's, even though the position is expected to be responsible for the safety of suppliers performing work. Training of supplier drivers on FH expectations for safety and oversight was not effective. Supplier companies are verbally informed that their drivers must contact the POC prior to performing work on site however the drivers involved in this event understood that the POC name was provided solely for badging purposes. The drivers did not understand that a check-in, a pre-job, or hosting/escorting by facility personnel was necessary

Neither the subcontractor's second driver nor the FH worker involved were sufficiently aware of proper actions to take prior to exiting the truck cab when an energized line had been struck. FH had recently developed a training course entitled Equipment Operation Near Power Lines, however the training was only required for limited personnel.

Recommendations:

1. Work request documentation and acquisition processing for Subcontractor work that involves industrial hazards must specify that personnel are required to contact an assigned Point of Contact prior to performing any work activities.
2. Facilities should evaluate work areas, including administrative areas, to determine if appropriate check-in information is prominently displayed.

3. The designated Point of Contact or Person-In-Charge must remain in a position to be contacted by subcontractor equipment operators at all times especially during scheduled deliveries involving heavy equipment.
4. Company, vendor, and subcontractor personnel should be knowledgeable of the proper emergency actions required when a vehicle contacts an energized power line as defined in Safety Information Bulletin [FHI SIB-2005-013](#).

Estimated Savings/Cost Avoidance: Not evaluated

Priority Descriptor: YELLOW/Caution

Work / Function: Occupational Safety and Health - General

Hanford Functional Categories: Associated Causal Factors - A4B1C01, A4B2C02, A5B4C01

Hazard: Electrical

ISM Core Function: Define Hazards, Develop and Implement Controls

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References: Occurrence Report: RL--PHMC-SOLIDWASTE-2005-0010, PHMC Lessons Learned 2005-RL-HNF-0026, FHI Safety Information Bulletin-SIB-2005-013

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