

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 1, 2011

TO: T. J. Dwyer, Technical Director
FROM: W. Linzau and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending July 1, 2011

River Corridor Closure Project: The facility representative (FR) identified a number of problems with the implementation of work at the 618-10 burial ground, including: maintenance was performed in a drum punch facility without an appropriate work package, containers were moved from a long-term storage area without complying with procedural requirements, and access barriers were improperly controlled. The problems were numerous and significant enough during a short period for the FR to identify this as a concern. A concern raised by the Richland Operations Office (RL) staff requires the contractor to develop a corrective action plan and RL will have to verify that the contractor has completed the approved corrective actions.

Inadequate work control practices in the 300 Area led to slightly contaminated water being sprayed on an occupied excavator. Workers were clearing a pad that had two 500-gallon plastic tanks holding waste water that had been partially solidified with an additive. The tanks were placed into on-site shipping containers and the excavator operator was instructed to add dirt and use the bucket to press down on one of the tanks to make sure it was below the top of the shipping container. This caused the tank to open and eject water onto the excavator. A number of issues were identified, including: the excavator operator did not receive a pre-job briefing even though one was requested, the person-in-charge (PIC) was not at the worksite and was not immediately notified after the event, the work was not completely stopped after the event, and the PIC was not present during recovery planning or clean-up actions.

TRU Retrievals: Senior contractor management issued a stop work after a series of events this week in the 12B burial ground, including: a TRU drum that was being loaded into a shipping container was dropped, two events where liquids spilled from drums that were being retrieved, and the severing of an energized 440-volt electrical cable. Workers responded properly and followed their abnormal event procedures, including contacting the Hanford Fire Department for the spills and dropped drum. Project managers reported the two liquid spills appeared to be from the use of dust suppression water, and neither radiologic nor chemical contamination was found. Additionally, project managers responded quickly to the events and directed compensatory measures before the stop work was declared.

Tank Farms: The 222-S Laboratory, a hazard category-3 nuclear facility, lost all electrical power on Monday afternoon. The diesel-powered ventilation fan started and has maintained negative pressure in the facility hot cells and hoods while the normal ventilation system has been shut down most of the week. Neither ventilation system is safety-related. Partial power was restored and the contractor believes the loss is related to a fault in an obsolete 13.8 kV circuit breaker in the nearby substation that powers a lab motor control center (MCC). Normal ventilation has not been restored because the control air compressor used for ventilation control is powered from the MCC. The contractor will restart troubleshooting after the holiday weekend because they believe the backup fan is adequate and the risks of working with 13.8kV power without full staffing exceed the risks of a potential contamination spread. The site rep noted to both ORP and contractor managers that the addition of a temporary control air compressor would allow normal ventilation to be restored while troubleshooting continues.