

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 26, 2013

TO: S. A. Stokes, Acting Technical Director
FROM: D. Gutowski and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending April 26, 2013

Tank Farms. Two double-shell tank farm ventilation systems, AY/AZ and AN, experienced problems which required entry into the same limiting condition for operation (LCO). In AY/AZ, the outlet valve for tank AZ-101, which is normally positioned half open, cycled closed and then open again multiple times. The contractor has not determined the cause of this valve cycling. The AY/AZ system is considered inoperable until this is resolved. However, while this valve remains half open, flow indicators show that there is sufficient ventilation for both the AY and AZ farms.

In AN farm, the contractor connected temporary power to the AN-B train in preparation for a planned farm power outage. On Tuesday, the AN-B train functioned on temporary power for a few hours then shutdown. AN Farm ventilation was restored on Thursday with the restart of AN-A train.

The site rep observed the contractor insert a camera into single-shell tank (SST) TY-105. This tank is an interim-stabilized assumed-leaker and is one of the five highest priority tanks from those the contractor noted had decreasing level measurements similar to T-111 (see Activity Report 2/22/2013). The contractor visually confirmed that the level detector's plummet was sitting on the waste surface and providing meaningful level data. Later in the week, the contractor completed video inspections of SSTs T-203 and T-204 which are also high priorities for assessment. The contractor plans to estimate the varying impacts of evaporation, leakage, waste settling, and other factors that could be the source of level changes in these tanks.

The contractor's Plant Review Committee approved the proposed safety basis amendment that addresses impacts to safety-significant waste transfer equipment in the tank farms from upcoming 242-A Evaporator operations under its revised Documented Safety Analysis (DSA).

618-10 Burial Ground. The Richland Operations Office (RL) approved the new DSA for retrieving the remaining drums from the trenches as a hazard category (HC)-3 operation. The work had been approved as less than HC-3 until an RL engineer questioned if several drums that had been retrieved could individually exceed the HC-3 threshold (see Activity Report 2/1/2013). An RL manager reported that the controls in the new DSA are similar to those used when the work was considered less than HC-3. The contractor decided to recover several drums previously retrieved from 618-10 that had been buried in the Environmental Remediation Disposal Facility (ERDF) because they may contain TRU waste. ERDF is not licensed to accept TRU waste.

DOE headquarters approved an exemption request from RL to perform just a contractor Readiness Assessment (RA) rather than an Operational Readiness Review (ORR) for restarting retrieval from the trenches. DOE also approved the RL plan to conduct oversight of the contractor's RA rather than the more rigorous DOE ORR or DOE RA as defined in DOE Order 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*.