

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 4, 2016

**TO:** S. A. Stokes, Technical Director  
**FROM:** P. Fox and D. Gutowski Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending February 5, 2016

**Tank Farms.** The contractor attempted to start the waste transfer from AP-102 to AZ-102 to support receipt of AY-102 solids in AP-102. Two weeks ago, this transfer was halted due to a low flow interlock caused by problems with the pump discharge flow meter. Other instruments provided indication of flow. Extended low flow conditions can damage the bearings of the transfer pump. The contractor is working with the meter vendor to resolve the latest trips and has prepared a plan to complete the transfer with alternative flow monitoring. The upcoming supernate transfer from AY-102 will use the same type of flow meter.

The contractor successfully completed in service leak tests for new safety significant hose in hose transfer lines installed to support AY-102 retrieval. They tested five legs. These were the hoses connecting the two sluicers and the slurry pump to the AY-102 splitter box, and the longer lines from the splitter box to the AP-102 supernate pump and slurry distributor.

**100 K West Area.** The site rep observed installation of a safety significant divider plate into engineered container SCS-CON-230. This container contains sludge that was transferred from settler tanks during the sludge collection process. The divider plate protects safety basis assumptions contained in thermal and hydrogen gas generation safety calculations by limiting the maximum quantity of uranium metal that can be transferred to any individual Sludge Transport and Storage Container. The work was well-controlled and the team did not encounter any difficulties or significant anomalies during the installation. The contractor is working to complete re-lidding of the remaining containers. The last lid is expected to be installed next week.

**Waste Treatment Plant (WTP).** ORP released the report of a team that assessed design and operability of the Low Activity Waste (LAW) Facility (see Activity Report 2/28/2014). The team identified 519 vulnerabilities. Simultaneous with the report release, ORP also released a technical report to address the assessment team's findings. The technical report indicates that 52% of the vulnerabilities were previously known to the contractor, 6 % were outside of the contract scope, 5% were new issues, and the remaining 37% will require further review. ORP considers that the vulnerabilities identified in the report are manageable as part of design and safety basis completion effort. Additionally ORP, using the information from the report, worked with the assessment team to develop 10 recommendations. The intent of the recommendations is to provide a basis for the Assistant Manager, WTP to make timely forward-looking decisions to avoid, mitigate, or prevent potential risks from being realized within the LAW Facility as a result of the vulnerabilities. All of the identified vulnerabilities have been entered into the contractor's corrective action management system.

**Hanford Advisory Board (HAB).** The site rep observed the RL and ORP site managers' presentations to the HAB. Key items of interest included the proposed Effluent Management Facility at WTP and changes at the Environmental Restoration Disposal Facility.