

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 20, 2009

TO: T. J. Dwyer, Technical Director
FROM: M. P. Duncan and M. T. Sautman, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending February 20, 2009

DOE Staffing: Past Board letters (3/3/06 and 6/25/08) have noted weaknesses in DOE's safety oversight, partly due to understaffing. To help attract quality candidates and retain staff that had completed their qualification process, DOE reclassified criticality safety specialist and facility engineer (i.e., Safety System Oversight) positions to GS-14 and enacted a group retention incentive. In parallel, DOE upgraded qualified Facility Representatives (FR) to GS-14 as part of a site-wide FR action plan (4/25/08 report). While these initiatives have been instrumental in reducing attrition and attracting experienced candidates (e.g., ex-Shift Technical Engineers), they are all in jeopardy following the decision by the Office of Human Capital Management (HC-1) to terminate and cancel all group retention incentives and accretion of duties actions (i.e., grade increases). Furthermore, HC-1 temporarily suspended the human capital management authority that was re-delegated to the DOE-Savannah River Operations Office. This will likely delay the filling of critical technical positions (2/13/09 report). DOE-SR is concerned about the potential impacts to safety oversight and is actively pursuing a response plan to address the investigation's findings and minimize the impacts to the affected staff.

F-Tank Farms: The Tank 18 sand mantis operated over the weekend without the tilt arm and forward sprays (2/13/09 report). With about 1" of waste remaining, the contractor suspended further mechanical cleaning because the sand mantis was no longer productive in its current configuration. The vendor is testing the possibility of attaching a "foot" to the tilt arm that might allow the residual waste to be removed. Engineers are also evaluating options to remove crystallized salt that is suspected of plugging the forward/downward spray nozzles.

Interim Salt Disposition Project: Engineers determined the cause of the cross contamination in the Strip Effluent Hold Tank was a leaking Solvent Hold Tank header valve and hold-up in the solvent unloading leg that was not removed by flushing (2/13/09 report). The contractor modified the system to provide a vent path and blew down the vent path to remove any held-up solvent. This temporary modification allowed operators to draw a representative sample and the contractor resumed Modular Caustic-Side Solvent Extraction Unit operations.

H-Canyon/K-Area: DOE contracted a consultant to perform an Operational Efficiency and Cost Reduction Evaluation for these facilities and recommend potential cost efficiency improvements. Recommendations to extend the approval of Radiation Work Permits (RWP) beyond a year and allow Radiological Control Organization technicians to make on-the-spot changes to RWPs when work conditions differ from the RWP are not consistent with DOE-STD-1098, *Radiological Control*. DOE-STD-3013, *Stabilization, Packaging, and Storage of Plutonium-Bearing Materials*, requires periodic surveillance throughout the storage period to gather information on the behavior of the containers and contents. While the standard allows the level of scrutiny to be adjusted based on observed package behavior, the recommendation to discontinue all destructive and non-destructive evaluation of 3013 containers is inconsistent with the standard's surveillance program requirements. Finally, the recommendation to stop calibrations on general service instruments at H-Canyon could affect temperature controls, alarms, and interlocks that are mentioned in hazards analyses for preventing runaway red oil reactions, but not formally credited. DOE and the contractor are currently reviewing all of the recommendations to decide their resolution.