

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 11, 2005

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending March 11, 2005

Tank Farms: The Integrated Safety Management System (ISMS) Improvement Validation Assessment commenced this week. The team spent most of the week observing pre-job briefings and field work. The Site Rep met with the team lead to discuss how the team planned to validate the effectiveness of corrective actions related to hazards analysis, control identification, and feedback and improvement. The review runs through next week. The Department of Energy (DOE) issued a preliminary notice of violation and proposed a civil penalty of \$316,250 related to four radiological and operational events in 2003 and 2004. These events were noted in the Board's September 8, 2004 letter, which also initiated the ISMS assessment that is ongoing.

Waste retrieved to date with the existing pump in tank S-102 undergoes an average dilution of 10:1 with raw water. The weight of the upper saltcake layer tends to cause the underlying sludge to fill in any cavity cleared around the pump suction necessitating frequent unplugging of the pump suction screen. This higher than expected dilution worsens the impact of retrieved waste on tank space limitations and corrosion chemistry controls.

In response to Board staff concerns and DOE direction (see 12/3/04 report), the contractor is evaluating individual waste transfer valves that provide double-valve isolation. Valves that have sufficient procurement quality level and available test data are being subjected to a commercial grade item upgrade dedication process to quality them as safety significant. However, record reviews are not able to provide enough justification to upgrade other valves. In these cases, compensatory actions (e.g., safety management programs) are being identified and a process is being developed to ensure these valves are upgraded to safety significant when they are replaced.

K Basin Closure Project (KBC): The team conducting the Fluor Hanford assessment the KBC project management and effectiveness of broader scope corrective actions briefed the KBC senior management team on the preliminary findings. The team is also continuing to evaluate other information prior to issuing the final report. The findings included the following; 1) The Sludge Retrieval and Disposition Project had not performed a formal risk assessment for K East Basin sludge consolidation as required by the KBC project execution plan, 2) FH did not prepare a comprehensive or detailed scope of work for the British Nuclear Fuels Ltd. (BNFL) contract, including flow-down of certain nuclear safety requirements, and 3) KBC roles and responsibilities documents were inconsistent and out of date and various functions had not been documented. Problems were also noted with the integration of the BNFL contract and KBC, integrated schedule errors and inconsistencies, and cost and schedule variances that may make the project more manageable by rebaselining the project.

Cc: Board Members