

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 4, 2004

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending June 4, 2004

Sludge Retrieval and Disposition Project (SRDP): The Site Rep has conducted reviews of SRDP project and design documentation and has identified several deficiencies which appear to be repetition of issues identified by Fluor Hanford in their evaluation of the causes for the failed Sludge Water System (SWS) Operational Readiness Review (ORR) last year. The functional requirements document (FRD) for the project was not approved in accordance with facility procedures. Nuclear safety, quality assurance, and radiation control organizations were among those omitted from the approvals. Discussions have identified that the project is revising the FRD, however, the design for the K-East Basin sludge consolidation containers is complete, the design for the hose-in-hose transfer is at the 30 percent stage, and procurement activities for sludge processing equipment have begun.

An evaluation of the sludge consolidation container design report provided as part of the final design package has identified that the report does not adequately describe how the FRD is met by the design. Some requirements may not be able to be met by the system design, e.g., DOE Order 435.1, *Radioactive Waste Management*, requirements for packaging and storage of transuranic waste.

The SRDP also does not have an approved project schedule. The repetition of issues in these areas raises concern with the effectiveness of the corrective actions and compensatory measures put into place to improve the project management and engineering at SRDP. (III)

Tank Farms: The C-200 Vacuum Retrieval System Readiness Assessment should be completed early next week. Both attempts to complete a Technical Safety Requirement surveillance involving a leak detector functional test were unsuccessful due to electrical breaker issues in the support systems.

As part of the extent of condition review for addressing the higher than expected sludge height in AW-106, a risk evaluation identified seven additional tanks that need solids level measurements. Based on the average solids level in tank AY-102, it is within 5" of becoming classified as a Group A tank; one of the readings actually exceeds this level. (II)

Waste Treatment Plant: It was discovered that concrete placement at the High-Level Waste Facility contains three pieces of rebar that are the wrong size. Furthermore, five pieces of bent rebar have the wrong orientation and will not function as dowels as planned. This work was performed after two sets of corrective actions were instituted after similar mistakes last Fall.

Work is nearing completion for a 530-foot borehole that will be used to measure the shear wave velocity in the soils in the vicinity of the WTP. (III)