

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 18, 2004

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending June 18, 2004

Sludge Retrieval and Disposition Project (SRDP): North Load Out Pit sludge vacuuming commenced this week. The addition of lag storage at T Plant to the sludge activity has led to the startup plan reviewed by the ORR team to become invalid as it relates to shipping sludge. The SRDP had not modified the plan before startup of the system. The role of the startup plan as described in DOE standards is to give the ORR, and line management, an opportunity to judge the level of complexity of remaining startup activities, the control to be exercised, and provide an appropriate recommendation to the startup authority without having actually seen the events, or in this case, required permits and documentation. The Plan of Action for the T Plant sludge receipt has not been completed to determine if the scope of that review will provide the DOE oversight of these SRDP activities. (IV)

Emergency Preparedness (EP): The site rep observed the annual EP exercise which simulated the breach of a Multi-Canister Overpack at the Cold Vacuum Drying Facility releasing contamination to the environment and contaminating an injured worker. The exercise controllers incorrectly allowed workers who would have been contaminated to be considered as uncontaminated for the purposes of the exercise. As a result of this, the responding radiological control organization did not demonstrate their ability to respond to and control contaminated workers, a problem area in the last two annual exercises. No DOE oversight event scene EP organization and facility response was observed by the site reps. (IV)

Tank Farms: Retrieval of waste from tank S-112 resumed after a multi-month hiatus. The resolution of two issues identified during the C-200 series vacuum retrieval readiness assessment led to the declaration of a Potential Inadequacy in the Safety Analysis. It was assumed that transfers would not exceed 25 vol%, but the system is capable of transferring higher solid content slurries. The start of retrieval will be delayed a couple of weeks until the Documented Safety Analysis (DSA) can be amended. Additional tests are also being performed to ensure that phosphates in retrieved tank S-102 waste will not result in gelling downstream. During saltwell pumping of this tank, 4 pumps failed. (II)

The Site Rep met with Engineering managers because there have been approximately 2 dozen recent issues involving calculation errors, incorrect assumptions, and poor data quality that affected key process chemistry controls, many of them Technical Safety Requirement -related. In addition, assessment programs have found major weaknesses in several safety management programs (SMP) at the same time the DSA takes more credit for them. Managers believe that errors often result from a lack of integration and repeated modifications to the planned process. They also believe they need to re-baseline their flammable gas data and assumptions to improve their quality and documented technical basis. While their plans for establishing an operating margin between their flammable gas limits and planning predictions are positive, some of this margin is expected to come from shifting the flammable gas criteria from the least hazardous existing Group A tank to the average one. CHG is also planning to develop quarterly health reports for their SMP's like they do for safety systems. (IV)
cc: Board members