

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 1, 2008

**TO:** T. J. Dwyer, Technical Director  
**FROM:** W. Linzau and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending August 1, 2008

Plutonium Finishing Plant: The contractor learned that material stored in a package, commonly called a 3013 container, may not meet the moisture content requirement of DOE-STD-3013. The apparent cause was a transcription error made five years ago but not detected until a recent off-site review. The error may have resulted in one sample that was already adequately stabilized being re-stabilized, while the deficient sample was not re-stabilized. The contractor is evaluating if this is an unreviewed safety question. An extent of condition review appears to be warranted because the process did not require second party verification of the transcribed data. The suspect container is still onsite and measures have been taken to prevent shipping it offsite.

Tank Farms: The recovery from the waste spilled from tank S-102 last year progressed to the point that the spill area is no longer a high radiation area. The contractor is performing detailed contamination surveys, with a goal of down-posting the area from a high contamination area.

The Activity Description (AD) included in the Office of River Protection (ORP) -approved Startup Notification Report (SNR) for the startup of waste retrieval from single-shell tank C-110 was incorrect. The AD noted the activity was very similar to recent waste retrieval waste from C-109, with the primary exception being that the FoldTrack will not be used. The site rep noted that the retrieval pump designed for use in C-110 is a 100-HP hydraulic motor driven, four-stage centrifugal pump, while the C-109 retrieval pump was a 10-HP electric motor driven, single-stage centrifugal pump. Additionally the discharge pressure of the C-110 pump could exceed the design pressure of the hose-in-hose transfer line, necessitating the installation of a safety-significant relief valve. This project will also implement several improvements identified after the spill from S-102 that were not used with C-109, including improved lighting and video cameras and a new system of radiation monitors along the transfer path. These new systems should aid in early detection of leaks, including during nighttime portions of the planned around-the-clock operations, which were not allowed with C-109. The contractor acknowledged the deficiencies noted by the site rep, is revising the AD, and will redo the checklist to determine if the proposed level of readiness review is correct. The project will also conduct a design verification review next week. ORP will review the revised SNR before determining the appropriate level of readiness review. The contractor plans to install the retrieval pump next week, conduct a readiness review within a few weeks, and retrieve 50 per cent of the tank waste by the end of September.

The site rep performed walkdowns of the new primary tank ventilation system in AN tank farm and in the 242-A evaporator. The contractor system engineers were involved with ongoing system testing and were knowledgeable of the design changes as well as the authorization basis changes. The modified systems use variable frequency drive motors and programmable logic controllers. The contractor plans to complete these modifications in the next few weeks.

Contract Transition: The contract transition by CH2M Hill Plateau Remediation Company (CHPRC) began this week. The site rep met with the CHPRC President, J. Lehew, and Chief Operating Office, Vic Pizzuto, to discuss the organization of the new company.