

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 2, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending December 2, 2005

Defense Waste Processing Facility: ~18 pounds of glass was inadvertently poured during an air in-leakage test that was being performed between canisters. A valve was apparently left in the wrong position during an earlier equipment blowdown. This allowed a vacuum to develop faster than expected during the test and caused waste to start flowing in the spout. Luckily, the next canister was in place and the pour spout jet pump tripped soon afterwards. It also appears that the operator later noticed the error and then repositioned the valve without the use of a procedure or notifying anyone. A second inadvertent pour could have occurred a month ago (11/4/05 report).

Modular Repackaging System: A second emergency drill was conducted since the facility graded the one performed during the Readiness Assessment a failure. Casualty response was better this time although there were still some issues with the response by nearby construction workers. During the drill, the shift manager (SM) overruled a drill controller who had instructed the SM to have someone else respond to a real emergency and suspended the drill. The Site Rep also expressed concern to the facility manager that their informal handling of drill packages sent mixed messages on procedure compliance. For instance, controllers are often verbally directed to ignore portions of the written scenario and make unwritten modifications. Furthermore, the listed objectives do not reflect what the specific drill is trying to accomplish and often include generic objectives that are not applicable and ignored during evaluation of the drill.

HB-Line Operations: While calcining neptunium oxalate, the contractor identified moisture in the purge system rotometer. Moisture in the rotometer could indicate inadequate purge flow through the furnace and result in incomplete calcination. Upon identification of the moisture, facility personnel recalced the two filter boats which may have been affected. A formal surveillance to verify purge flow and moisture presence was added to the operator rounds following the initial identification of moisture issues with neptunium oxide production.

Tank 5: In order to remove sludge mounds, tank 5 was refilled and mixed again. Waste leaked from the same spots as the first time with similar rates. No new leaks were identified.

Readiness Assessments (RA): The Site Reps reviewed the contractor's significantly expanded draft RA procedure. It addresses many lessons learned from recent RA's.

Savannah River National Laboratory (SRNL): Transuranic (TRU) waste drums will be shipped to SRNL and repacked to remove prohibited items. While the process hood exhaust system is credited for passive confinement and airflow, SRNL has chosen to credit their facility material inventory control program rather than credit the filters for dose reduction. The Site Rep is concerned about the heavy reliance on this administrative control to minimize dose (and for criticality control). For example, it is currently not a specific administrative control and there is no independent verification of the data entered into the software program. The staff will also be reviewing the safety of using a wooden confinement hut to repackage TRU waste.