

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 15, 2008

TO: T. J. Dwyer, Technical Director
FROM: M. P. Duncan and M. T. Sautman, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending August 15, 2008

F-Tank Farm: The contractor Readiness Assessment (RA) for Tank 18 and 19 Mechanical Waste Removal commenced. Performance of some of the demonstrations and the interface between facility personnel and the subcontractor operating the sand mantis were not as proficient as expected, possibly due to the fact that many of the evolutions were run for the first time. During a system alignment checklist, an operator left two valves in the incorrect position because he was confused by misleading handwritten information next to the valves. While more examples of not fully independent verifications were observed (see 6/6/08 report), the independent verifier noticed the above errors and reacted appropriately. Later on, the shift manager allowed the operations liaison to provide the subcontractor the key for unlocking the emergency stop before the shift manager had signed off that he had granted permission to start sand mantis operations. The RA team has identified a number of examples where the subcontractor's staff did not demonstrate rigorous conduct of operations. Due to these and several other likely findings, the DOE RA has been delayed and is tentatively scheduled to start September 2.

The Tank 25 to 41 (F- to H-Tank Farm) transfer resumed last weekend, but was shut down again when the minimum flow rate could not be maintained. Furthermore, when the transfer line was flushed, the expected volumes were not seen at certain locations again. These issues are under investigation. (See 8/1/08 and 8/8/08 reports).

F-Canyon: The Site Rep observed a mock-up of a new approach for removing 55-gallon transuranic waste drums, which may be degraded, from 85-gallon overpacks. To prevent the release of contamination when the overpack is opened, a cart is slid over the top of the overpack. The cart is equipped with filtered, localized ventilation to sweep air over the top of the drum while the outer drum lid is removed and the inner drum is surveyed. As the 55-gallon drum is being raised out of the overpack with a hoist and grapple, a thick, vented plastic sleeve slides over the inner drum and is connected to the exterior of the outer drum. This is expected to contain any contamination or liquid that is released if the inner drum is breached. The large sleeve will be cut and taped like a normal glovebox bag cut. The mock-up identified the need to modify the cart to provide more clearance between the cart and the overpack as well some other modifications needed to eliminate places that could potentially snag the plastic sleeve or personnel protective equipment. (See 7/25/08 report).

H-Canyon/HB-Line: DOE-SR approved the recovery plan for the H-Canyon receipt tank with a Safety Evaluation Report, which allows restart of the tank's agitator to take a well-mixed confirmatory sample. The suspensions on Los Alamos National Laboratory oxide processing and neptunium operations were both released. In HB-Line, Phase III operations resumed.

Plutonium Preparation Project: This project was formerly called the Plutonium Disposition Project. As directed by the Under Secretary of Energy when he approved CD-1A on June 27, an external technical review was performed at SRS this week to verify the technical, programmatic, and cost assumptions of the project.