

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 23, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending September 23, 2005

F-Canyon: This week, the Department of Energy (DOE) directed the site contractor to discontinue deactivation work in F-Area. The cessation of work will allow DOE the opportunity to reevaluate the current end states for the various facilities. The letter of direction does not affect ongoing deactivation work in FB-Line or the 800 series underground tanks.

Tank 5 Waste Removal Readiness Assessment (RA): The RA Plan of Action's (POA) lines of inquiry for operator training, procedures, and conduct of operations were very limited and did not emphasize the performance demonstration focus of readiness reviews. The facility initially did not make any preparations to conduct any relevant dry runs for the RA team to observe. While a dry run was eventually conducted, it was too short, unnecessarily and grossly simulated, and the RA team did not provide enough oversight of the multiple work locations. The scope of the dry run and two tabletops was limited to the startup of the submersible mixer pumps and ignored significant activities such as how the anticipated primary tank leaks were going to be detected and mitigated. This limited review was enough though to raise serious questions about procedure validation and operator training on the procedures. The Site Rep met with DOE to discuss the Board's concerns with the RA's scope and rigor. After DOE management was independently provided similar feedback from the DOE RA validation team and made some confirmatory observations themselves, DOE management told the contractor that the RA needed to either be extended or redone. On Friday, the contractor suspended the RA until the POA could be revised, a schedule of dry runs developed (including possibly a simulated annulus to primary tank transfer), and a defined list of simulations agreed upon. Senior management will also have to agree that: 1) the revised RA scope is adequate before the RA resumes and 2) the review was thorough enough before the RA ends.

Inadvertent Transfer: While transferring liquid waste from the Defense Waste Processing Facility to the high-level waste system, an inadvertent transfer occurred. While observing tank levels, a control room operator identified an unexpected level increase and terminated the transfer prior to the tank overflowing. Approximately 910 gallons of waste were transferred to the wrong pump tank. A critique was held and the root cause was determined to be a misaligned valve which was not identified by an independent verification. This was the seventh inadvertent transfer this year. In each of the last two years the site reported 11 inadvertent transfers.

Savannah River National Laboratory (SRNL): Following an entry into a laboratory, a worker picked up contamination, 20,000 β/γ dpm, on her shoe. A followup survey of the laboratory revealed three areas of β/γ contamination consisting of 100,000 dpm (large area smear), 70,000 dpm/100cm², and a 1,000,000 dpm hot spot. No significant work activities have occurred in the laboratory since May 2005. The source of the contamination was not readily apparent and is currently under investigation by the contractor. This is the seventh contamination event in the last two months at SRNL. The contractor has identified the negative trend in contamination events and has begun analyzing any potential commonalities between the recent events.