DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 3, 2012

TO: T. J. Dwyer, Technical Director
FROM: M. T. Sautman and D. L. Burnfield, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending February 3, 2012

Transuranic (TRU) Waste Shipments: The Onsite Safety Assessment (OSA) for transporting TRU waste between E- and F-Areas requires that the designated transfer route shall assure that a minimum 9.4 km is maintained between the truck and the site boundary. The 9.4 km limit was not based on the actual designated transfer route (which was not in the OSA), but was from a calculation that used the distance between the F-Canyon stack and the site boundary. Although F-Area personnel thought they had verified this limit by driving between F-Area and the Jackson barricade, SRNS identified this week using mapping software that the transfer route actually approached within 8.7 km of the boundary. In other words, the approved OSA controls made it impossible to perform the scope of work it authorized.

Solid Waste Management Facility (SWMF): SRNS is removing 83-gallon TRU waste drums from 110-gallon overpacks and placing them inside standard waste boxes (SWB) for future shipment to the Waste Isolation Pilot Plant. SWMF personnel believed that 34 of these drums presented a low hazard to the facility workers and so allowed workers to repackage them on Pad 6 without any respiratory protection. Last Friday, workers unloaded 16 of these 34 overpacks and placed the 83-gallon drums into SWBs. One of the seven workers was selected to wear a representative lapel air sampler during the activity in accordance with SRNS radiological protection procedures. When radiological protection personnel counted the filter paper, it had a positive count which was later confirmed by B-Area laboratory personnel. The potentially affected personnel were placed on a special bioassay and restricted from performing radiological work until they provided the sample. Any dose is expected to be minimal.

H-Canyon: Due to a lack of specificity during shift turnover, operators transferred general purpose evaporator bottoms without performing a procedure attachment to break down any residual tributylphosphate in the solution. Contributing to this mistake was the fact that the procedure identified the wrong section number for performing this action. When the oncoming shift checked the incorrectly referenced attachment, they found it complete and initiated the transfer. This typo occurred in December when a procedure writer rolled up several immediate procedure changes and converted the procedure into a new site procedure format. SRNS intends to increase the rigor of reviews for procedures that are converted into the new template to find any similar typos.

F-Tank Farms: Radiography found that the area of known cracks in the Tank 44 exhaust ductwork was larger than initially estimated and identified other potential through wall cracks hidden by paint. SRR patched up the cracks on the Tank 44 and 46 ducts. (See 1/20/12 report).

HB-Line: SRNS declared a Potential Inadequacy in the Safety Analysis because the Justification for Continued Operations did not recognize the possibility that some sealed sources could cause a pressurized release during a fire.

H-Tank Farms: As part of the upcoming removal of a telescoping transfer pump (TTP) from Tank 30, SRR will have to remove trapped waste from the bottom of the pump. In 2003 when a similar TTP was removed, a hole was burned in the bottom of the jet using a welding torch while the pump was still in the tank riser. The Site Rep performed a field observation of Tank 30 and discussed this task with SRR and DOE personnel.