DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 15, 2013

TO: S. A. Stokes, Technical Director
FROM: M. T. Sautman and D. L. Burnfield, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending November 15, 2013

Defense Waste Processing Facility: Radiographs of the laboratory drain header identified the location of the plug as well as other solids buildup. Engineers are continuing to investigate the cause of the plug. Workers have decontaminated much of the laboratory (see 11/1/13 report).

Tank Farms: The staff continued their review of the flammability and corrosion control programs. SRR does not expect that FY14 activities will create additional rapid hydrogen generation tanks, lower the time to the lower flammability limit of any additional tanks below 10 days, or create any more seismic priority 1 tanks.

SRR occasionally gets sample results that indicate a tank is no longer in compliance with corrosion control requirements. This may happen when the waste is either diluted (e.g., sludge washing, salt dissolution) or the waste's surface is sampled and the waste is not well mixed. In the last 3 years, SRR had to lower a tank's supernate temperature limit twelve times to bring the tank back into compliance. SRR also had to add caustic to two tanks after their waste was diluted enough to become noncompliant.

SRR personnel discovered a potential new leak site on the wall of Tank 4 during the annual visual inspection. This leak site is located at approximately 233 inches from the tank bottom. SRR identified this defect in past inspections, but now has enough information on the defect to conclude it is a potential leak site. In 2011, SRR reported a similar leak site at approximately 234 inches. In order to prevent waste from entering the annulus, SRR has set the high liquid level conductivity probe at 200 inches. The current waste level in the tank is 140.6 inches.

Since the current budget and schedule do not support closure activities in the near future, SRR personnel are preparing layup plans for Tanks 10, 12, and 16 to preserve them in a safe condition for an extended period.

K-Area: The Double Port Transfer Exchange (DPTE) is used to transfer 3013 containers into and out of the destructive evaluation glovebox without breaking the containment of the glovebox. During normal transfers, the DPTE is attached to the glovebox. Then the DPTE lid is connected to the glovebox door to prevent the exterior of the glovebox door from being exposed to the interior of the glovebox when it is opened. During a recent 3013 transfer, the glovebox door did not connect properly to the DPTE lid. Thus when an operator opened the glovebox door, the exterior of the glovebox door and the DPTE lid were exposed to the inside of the glovebox and potentially contaminated. The crew closed the glovebox door as soon as the anomaly was detected and paused work, leaving the overall DPTE mated to the glovebox and in a safe configuration. SRNS is modifying the operating procedures to try to detach the DPTE from the glovebox with minimal spread of contamination. Until this occurs, SRNS restricted access to the room and is monitoring airborne activity.