DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 30, 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 March 30, 2012

K-Area: Trending data indicates that the observed performance degradation of the fire water pumps is due to worn components causing clearances to be outside the manufacturer's specification (see 3/27/12 Board letter). SRNS will be replacing both the diesel and electric motor fire water pumps. SRNS has also decided to drain and repaint their fire water supply tank.

Fire Department: New hires will now have to successfully pass five physical agility tests when initially hired and annually thereafter. Tests include carrying 100' of hose up six sets of stairs, dragging a 165 lb. mannequin 100', and being able to make a forcible entry with a sledge hammer – all while wearing a 50 lb. vest to simulate firefighting gear. This is part of a larger effort to ensure that fire department personnel can adequately and safely perform expected emergency response actions.

Transuranic (TRU) Waste: The site rep met with SRNS to discuss their plans for remediating very difficult TRU waste. The site rep was shown the type of circular saw they intend to use for cutting open welded stainless steel coffins as well as sort tables and fire retardant overalls for their plastic suits. Workers will have to deal with high dose rates, contamination levels, and/or fissile contents in other containers. The site rep also observed workers repack and size reduce drums, boxes, and culverts in F- and H-Canyons. In each case, workers faced challenges from the waste content, but consulted with radiological control or engineering to work through them.

H-Canyon: TRU waste remediation was on hold much of the week because the Canyon was operating in a two fan configuration. Last week, SRNS shut down an exhaust fan when a crack in the duct (downstream of sand filter) was found to be propagating. A different fan was started, but quickly shut down due to high vibration. SRNS later reduced the vibration and plans to repair the duct shortly.

Defense Waste Processing Facility (DWPF): As part of verifying grounding points for a lockout/tagout, DWPF personnel opened a relay cabinet. A relay is installed in the door to this cabinet to assist in keeping the buses aligned. DWPF personnel are not often required to open this door and when they opened it this time the vibration of the door caused the relay to trip. The tripping of the relay caused the loss of one of the buses supplying power to S-Area. The plant responded as expected for the loss of the electrical power and placed the related systems in a safe state. Thus, part of the ventilation for DWPF was lost, the cooling tower switched to the backup system, and the diesel generator came on line. In addition, related systems experienced problems including: lighting, the control room phone system, the public address system, and a fire suppression system. Facility personnel responded well to the casualty and the plant was restored to normal by the next morning. SRR is looking at design and maintenance changes to prevent recurrence.

Work Planning and Control: A select team of URS work planning and control personnel evaluated the SRR program against a URS work planning and control standard. Don Owen of the Board's staff was onsite to follow this review. In general, the team conducted a professional review and found several opportunities where the site procedures could be improved. The URS team agreed with SRR that numerous site requirements were not totally aligned with the URS standard and require further clarification. SRNS, who owns the site procedures, has already agreed to incorporate approximately 20 of these changes as a result of the improvements identified by SRR. SRNS also stated that they are performing a crosswalk that will not only include the URS and SRS site procedures, but will also include the Energy Facility Contractors Group (EFCOG) standard that should be approved within the next several weeks.