DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 31, 2009

TO: T. J. Dwyer, Technical Director
FROM: D. L. Burnfield and M. T. Sautman, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending January 1, 2010

HB-Line: The Site Rep observed Phase I operations. After workers noticed a can to be processed was labeled as having whole body dose rates that exceeded their Radiation Work Permit suspension guidelines, they called a time out, redid their pre-job briefing and resumed work with additional dosimetry. The Site Rep discussed with the Operations Manager the possibility of flagging these higher dose cans so they can be anticipated ahead of time. The Site Rep also pointed out two high-high alarm lights in the control room that were flashing red, but which were not labeled to reflect they were actually out-of-service.

Work Planning: The Hazard Category Determination (HCD) process grades activity hazards to determine the appropriate hazards analysis tool and level of management review. At tank farms, SRR is getting management approval of the HCD conclusion after the hazards analysis and work package have already been completed rather than before as required by SRS procedures.

Department of Energy Staffing: DOE-SR is trying to get authorization to increase their very limited number of excepted service positions to help recruit and retain highly qualified technical staff. DOE-SR currently only has 2 out of the 53 excepted service positions within DOE-EM. By comparison, Portsmouth has three and Hanford has twelve. Furthermore, recent budget cuts might jeopardize plans to backfill the Division Director of the Office of Safety and Quality Assurance and hire two facility representatives, two nuclear Senior Technical Advisors, a construction engineer, and several Federal Project Directors.

Saltstone: Cell A of Vault 4 contains 10,000 drums of low-level waste from a Naval Fuel facility that were covered with grout. The roof of this cell was not tied to the outside walls with reinforcing steel and has cracked before. This week after recent record-setting rainfall, a crack approximately 100 feet long and up to 5.5 inches wide was discovered on the roof. The contractor believes the crack resulted from hydrostatic pressure and the lack of continuous reinforcement. Workers drained the water in the cell and covered the crack with tape to prevent further water intrusion. The contractor is continuing to pour grout into a cell at the other end of the vault which has a different roof design and which is not structurally connected to Cell A.

Pit Disassembly and Conversion Project: NNSA directed that SRNS will be the project integrating contractor and will be the construction, project business, and operation functional leads. URS will be the design/engineering lead and design integrating contractor. SRNS will also be the design authority (DA), but the DA function will be within the URS design/engineering function.

Year in Review Part Two: SRR and SRNS tritium accomplishments included:

- Processed 2.3 million gallons of salt waste at Saltstone.
- Poured ~180 canisters at the Defense Waste Processing Facility (DWPF).
- Completed chemical cleaning of Tanks 5 and 6 and mechanical heel removal of Tanks 18 and 19.
- Processed over 622,000 gallons of salt waste through the Interim Salt Disposition Project
- Record attainment of the 2H evaporator allowed a Type IV tank to be converted from DWPF recycle storage to salt batch preparation and qualification.
- Extended the record of on-time reservoir shipments to 51 consecutive years. In FY09, 1522 reservoir-equivalent units were processed (emptied/refilled or filled), a 25% increase over FY08.
- Function tested 119.96 reservoir-equivalent units in FY09, eliminating the large backlog that was inherited when the Gas Transfer System Surveillance mission was transferred to SRS in 1993.
- Completed extraction of the Cycle 8 Tritium-Producing Burnable Absorption Rods (240).