DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 27, 2002

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
J. J. McConnell, Deputy Technical Director

FROM: R. T. Davis/ T. D. Burns

SUBJECT: SRS Report for Week Ending December 27, 2002

Evaporator Performance: Over the last six months the attainments for the 3H, 2H, and 2F evaporators were 30%, 82%, and 45%, respectively. Downtime for the 3H evaporator was due primarily to waste temperature in the feed tank (Tank 32) exceeding the operational limit that protects the feed pump seals. The 2F evaporator was shut down for approximately one month in support of the F-Tank Farm Services Upgrade project. Approximately 2.3 million gallons of overheads were produced during this period.

The third internal inspection of the 2H evaporator was completed during a recent planned outage. No significant accumulation of scale was found (site rep weekly 3/22/02).

Low-Curie Salt: A path forward for removing and dispositioning the unexpected solid material in Tank 50 has been determined (site rep weekly 11/15/02). Two additional slurry pumps will be temporarily installed in Tank 50 to provide the capability to suspend the solids, which will subsequently be sent through the Saltstone Production Facility(SPF) for ultimate disposition in the Saltstone Vaults. The site is considering using relatively benign recycle material (RBOF receipts currently stored in Tank 23) as the slurry media. This approach is sensible from a space management standpoint but would likely require additional regulatory support. Current schedule estimates indicate a four month duration for the solids removal project. This delay will prohibit DOE from meeting two Recommendation 2001-1 commitments– transferring the first low-curie salt to the SPF by December 2002, and returning Tank 50 to service by March 2003.

FB-Line Packaging and Stabilization: WSRC continues facility modifications to support packaging plutonium metal and oxide to the DOE-STD-3013. The outer can welder has been transported from SRTC to FB-Line with final facility modifications to support this system expected in January 2003. Operator training on the system is scheduled to begin in January to support welder operations in April 2003. The 25 can qualification run for the weld system will be performed just prior to startup. For the oxide stabilization portion of the project, WSRC has installed the new higher temperature furnaces in the facility. Furnace operations are currently expected to start ahead of schedule in Fall 2003 (the Recommendation 94-1 commitment is November 2003).

Last week, the DNFSB staff (R. Tontodonato, T. Dwyer, and J. Contardi) held a video conference with DOE-SR to discuss readiness reviews for startup of both the outer can welder and the oxide stabilization portion of the project. DOE-SR had previously planned to perform oversight of contractor Readiness Assessments (RAs) vice independent DOE RAs for both of these activities. However, DOE-SR now plans to perform an independent DOE RA for oxide stabilization based on the hazards associated with this activity and length of time since significant furnace operations in FB-Line. Although this is the current plan, the final plan for readiness reviews will depend on the extent of Authorization Basis changes to support oxide stabilization activities. WSRC plans to submit these changes to DOE-SR in March 2003.