DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 26, 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 July 26, 2002

TEF Project: NNSA-SR personnel have completed their review of the recently submitted WSRC estimate-at-completion (EAC) for the TEF project (site rep weekly 4/19/02). This EAC was developed consistent with previous direction from Dr. E.H. Beckner, the NNSA Deputy Administrator for Defense Programs, that WSRC self-perform the balance-of-plant construction. The revised project cost is now $443M with project completion expected in March 2007.

A NNSA-HQ team will arrive on site next Monday to perform an extensive two week validation review of the proposed EAC. Pending successful completion of this validation review, a final decision will be made by Dr. Beckner regarding proposed project scope reductions (site rep weekly 4/19/02).

Saltstone Vulnerability Assessment: A comprehensive vulnerability assessment of the Saltstone Production Facility (SPF), addressing both worker safety and process reliability, was completed this week (site rep weekly 7/12/02). A final report is to be issued by the end of the month. Over seventy significant vulnerabilities were identified, the majority of which involve primary process equipment and will require physical modifications to resolve.

WSRC and BNFL are evaluating options to address these vulnerabilities and a proposed path forward for establishing a safe and reliable grout processing capability is being developed. Given the extent of the required modifications to the existing SPF, serious consideration will likely be given to the viability of implementing an alternative grout processing capability. Regardless of whether DOE ultimately decides to overhaul the SPF or implement an alternative capability, it appears unlikely that processing of the first low-curie salt material will commence by the December 2002 commitment date in the latest revision of the Recommendation 2001-1 implementation plan.

HB-Line: Late last year, WSRC began converting plutonium solutions to oxide in HB-Line Phase II. The first campaign included existing plutonium solutions in tanks 12.1 and 18.3 (approximately 100 kg). However, because these solutions were not expected to meet the feed specifications for the Mixed-Oxide Fuel Fabrication Facility (MFFF), DOE decided to suspend processing this material after the initial solution transferred from H-Canyon was converted to oxide. For the remaining material, WSRC began pursuing an option to disposition the material to HLW (site rep weekly 2/15/02). This week, WSRC completed transfer of the 12.1 and 18.3 plutonium solutions to HLW for disposition at DWPF (site rep weekly 7/19/02). In addition, WSRC has converted the solution that was transferred to HB-Line to an oxide. WSRC is currently flushing HB-Line phase II equipment and expects to begin processing plutonium solutions in H-Canyon tank 16.3 in late August. This solution was produced during HB-Line Phase I dissolution of residues from FB-Line and was expected to meet the MFFF feed specification if blended with other material. Based on concerns that blending of oxide may not be acceptable, WSRC is also evaluating other options including disposition of some or all of the material to HLW.