DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 2, 2003

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 May 2, 2003

Staff members H. Massie, D. Winters, and V. Anderson were on-site Tuesday to review the preliminary design and safety strategy for the Waste Solidification Building (WSB). The WSB will provide a cementation capability for both low-activity and high-activity actinide waste streams to support the needs of the Mixed-oxide Fuel Fabrication Facility and the Pit Disassembly and Conversion Facility. The final cemented waste forms produced by the WSB will be disposed of as either Low-Level Waste or Trans-Uranic Waste, depending on actinide concentrations.

Public Interactions: On Wednesday, Dr. Burns gave a presentation to the Savannah River Local Section of the American Nuclear Society. The presentation focused on communicating the Board's mission, statutory responsibilities and powers, organizational structure, and approach to value-added oversight for the Department of Energy's defense nuclear complex. Several attendees offered their perspectives on the Board's activities at the Savannah River Site, and numerous questions were fielded on all aspects of the Board's operations. Overall, the presentation was well received.

Plutonium Storage: Staff members R. Zavadoski, J. Contardi, R. Kasdorf and C. Shuffler were on-site this week reviewing the ventilation systems associated with K-Area Material Storage (KAMS), Building 235-F and FB-Line. The KAMS ventilation system is not classified as a safety system; however, the system is important to safety. The draft Documented Safety Analysis, which is expected to be approved soon, currently relies on operation of the ventilation system during certain fire scenarios. In addition, staff members D. Burnfield, M. Moury and B. Lewis (outside expert) were onsite to review the maintenance programs at facilities that will support long term storage of plutonium materials.

During previous reviews of the Building 235-F safety basis, the staff noted that the safety basis was based on a limited remaining facility life. However, recent DOE plans for plutonium storage at SRS include use of the 235-F building for a longer period. Last week, DOE-SR requested WSRC to upgrade the safety analysis to be consistent with the extended operational life. Similarly, the KAMS safety basis was based on an operational life of 10 years. Current plans would require use of this facility for beyond 10 years.

Americium/Curium Residuals: Upon successfully completing repairs to power cabling for the F-Pump Tank 2 agitator, batch transfers of residual americium/curium hold-up material from F-Canyon to F-Tank 33 were resumed (site rep weekly 4/25/03). On Thursday, the last of ten batches was received in F-Tank 33 and post-transfer flushing was completed.