DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 6, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending July 6, 2007

Tritium Operations: While walking down the H-Area Old Manufacturing facility, a facility representative identified a helium gas cylinder connected to an argon gas header. The argon gas header is used for inerting and leak testing of shipping packages. The Safety Analysis Report for Packaging (SARP) specifies the use of either nitrogen or argon for these operations. The contractor has reported the event as a SARP noncompliance. The contractor held a critique which identified human error as the root cause. In addition, neither the procedure nor the packaging data sheet required the verification of the gas type.

Nuclear Material Packaging: On June 29, 2007, WSRC provided DOE with an implementation plan (IP) for compliance with the draft DOE M 441.1-1, *Nuclear Material Packaging Manual.* The estimated cost range is $5M to $8M and the schedule range is between 30 and 42 months. All high and medium risk items would be repackaged within 12-24 months with appropriate funding. The necessary funding is currently not included in the fiscal year 2008 budget. A key assumption in the IP pertains to the ability to validate DOT Specification containers (e.g., 6M containers). If the containers cannot be validated against the manual the cost and schedule estimates may be impacted.

Transportation: In light of recent concerns, the Savannah River Operations Office is re-evaluating the process defined in their Transportation Safety Document. In the interim, DOE-SR will review and approve any Non-Routine Onsite Transfers. (June 1, 8 and 15 Site Rep weekly reports)

Emergency Preparedness (EP): The fact that several of the preliminary issues being identified with the performance of the 2007 annual EP exercise are similar to past findings raises questions about the effectiveness of previous corrective actions. For example, one of the likely significant issues for the 2007 exercise is the weak command and control at the incident scene. In the 2005 and 2006 exercises, unified incident command structures for the site response were not established in the field. During both the 2007 and 2006 exercises, neither the Incident Scene Coordinator (ISC) nor the Radiation Control Organization (RCO) First Line Manager (FLM) were present at the Incident Command Post. The Site Rep's weekly report on the 2006 exercise stated that "the proximity of personnel to the release, the lack of monitoring of airborne radioactivity, and contamination control practices could result in cross-contamination or uptakes." This year, the ISC and RCO FLM would have become contaminated if this was a real release because they located themselves too close to the incident scene. Air monitoring was not initiated despite high contamination levels and respiratory protection was not used despite an alarming continuous air monitor. Very poor contamination controls and very limited use of personnel protective equipment also led to extensive cross contamination of responders, equipment, and the incident scene.

Independent Assessment: As a result of several recent events, the contractor has requested that Mr. F. McCoy lead an independent assessment of nuclear safety control implementation and conduct of operations. The scope includes H-Canyon/HB-Line, K-Area, and Tritium operations.