DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 10, 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 January 10, 2003

Depleted Uranium: On March 7, 2002, the Board issued a letter to DOE that identified concerns with the storage and disposition plans for Depleted Uranium (DU) materials at the Savannah River Site. In September, DOE responded to this letter and noted that the highest risk material (i.e., DU oxides stored in Buildings 728-F and 730-F) would be disposed of as low level waste in the short term. For other DU materials, a long-term disposition plan would be developed by November 2002.

WSRC has placed all of the DU oxide drums in 728-F and 730-F (approximately 3,200 drums) on pallets. These drums will be shipped to Envirocare of Utah to be disposed of as low-level waste. The first shipment should occur in the next few weeks. This pilot program dispositions approximately 10% of the DU oxide and will be complete within the next 3 to 4 months. The long-term disposition plan, which was completed in November 2002, commits to identifying a plan for the remainder of this material by January 2004. If the pilot program is successful, it is likely that all of the DU oxide will be shipped to Envirocare for disposition. For depleted uranyl nitrate solutions stored in both F and H-Areas, WSRC is pursuing an outside vendor to stabilize and disposition these materials. The plan commits to December 2003 for a path forward on these solutions. The plan also commits to identifying a path forward for other site depleted, natural, and low-enriched uranium materials. DOE plans to brief the Board on the contents of the long-term disposition plan next week.

DWPF Outage: Last week, the DWPF replacement melter (Melter #2) was successfully placed in the Melt Cell and efforts to establish support equipment tie-ins commenced this week. While attempting to install the seal-pot (a pressure relief device for the melter), it was determined that unexpected mechanical interference from an upper guide plate on the melter frame would preclude successful installation of the equipment. Modification of the upper guide plate will be required to resolve the interference, and it was decided that Melter #2 should be removed from the Melt Cell and placed back in the Rail Road Well prior to performing the modification.

Attempts to remove Melter #2 indicate that it is stuck in the melt frame. Subsequent evaluation indicates that the bottom northwest corner of the melter is wedged between an outer guide plate and a positioning dowel rod. WSRC has developed a path forward to remotely install a hydraulic jack to pry the bottom northwest corner of the melter free, and plans to resume Melter #2 removal activities this weekend once the necessary hydraulic equipment has been procured.

A failure to properly incorporate as-built aspects of the melter frame into the controlled dimensional drawings appears to be reason why the seal-pot interference problem was not identified prior to placement of Melter #2 in the Melt Cell. WSRC is pursuing corrective actions to determine if similar drawing inaccuracies exist elsewhere in the facility that could negatively affect equipment installation or removal.

Also this week, WSRC has indicated that they intend to include the Distributed Control System (DCS) upgrade for the facility in the work scope for the current outage.