DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 10, 2009

TO: T. J. Dwyer, Technical Director
FROM: M. P. Duncan and M. T. Sautman, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending April 10, 2009

M. Sautman was offsite this week.

American Recovery and Reinvestment Act: DOE allocated $1.615 billion to SRS to be spent within the next 30 months. DOE plans to use the funds to accelerate environmental cleanup, accelerate deactivation and decommissioning programs, and reduce risks to the environment. Notably, DOE plans to decommission P and R Reactors, eliminate most of the risk due to plutonium-238 holdup in 235-F, ship the remaining excess depleted uranium oxide off-site, and characterize and ship or stage for shipment all legacy transuranic waste containers and treated mixed low-level waste.

H Area New Manufacturing: While operators were in the process of reducing the pressure in a weapon component loading line, a rupture disc burst due to an incorrectly positioned valve. The procedure required the operator to ensure a clear path (i.e., all valves open) to the destination tank as indicated by the distributed control system. Another operator also verified that the path was clear, but both failed to notice that the valve in question was closed. No tritium was released to the glovebox because the system is designed to vent to a relief tank. In addition to addressing the conduct of operations aspects of the event, the contractor is considering adding a new software interlock.

Solid Waste Management Facility: A truck containing a loaded TRUPACT-II (transuranic waste transportation container) was forced to return to SRS after a discovery that its tested helium leak rate exceeded requirements. An error had been made in a calculation on the leak test data sheet, but neither the operator nor a second person verifier caught it. The error was later discovered by a third party. Further review found that an incorrect temperature conversion factor had also been used. The contractor initiated an extent of condition review. Of note, no errors with any recent shipments have been discovered, but all of the paperwork contained at least one error that was subsequently caught and corrected by the second person verifier.

Saltstone: Salt waste grouting operations resumed this week after the facility recovered from the failure of the grout pump. Facility restart had been delayed by approximately a week due to a conservative decision to accelerate development and deployment of a new alarm into the process control system. The alarm is intended to alert operators when process conditions appear similar to those seen prior to the grout pump failure.

HB-Line: Two mechanics were working in a glovebox, taking turns performing an activity using the same pair of gloves. One mechanic removed his hands from the gloves and began monitoring for contamination. The other mechanic immediately began working using the gloves, instead of waiting for the other mechanic to finish monitoring. One glove had been breached, and alpha contamination was detected on the forearms of each of the mechanics' protective clothing. With the assistance of a radiological control operator, both mechanics exited the room safely. The cause of the glove failure was unknown.