DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 23, 2013

TO: S. A. Stokes, Technical Director
FROM: M. T. Sautman and D. L. Burnfield, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending August 23, 2013

HB-Line: The site representative observed the control room response to a simulated 3rd level fire. During the drill, an amplifier had a real failure that caused the loss of the public address (PA) system and safety alarm signal to HB-Line and many nearby facilities. (When a failure like this occurs, the control rooms do not receive any indication and a failure could potentially go unnoticed until the next regularly scheduled weekly test of the PA system). Neither the H-Canyon Area Emergency Coordinator nor the HB-Line Facility Emergency Coordinator pulled their abnormal operating procedures for this failure even though they eventually realized it failed during the drill. As a result, the emergency coordinators did not inform facility and other nearby workers that an emergency had been declared and what the appropriate protective actions were.

The DOE Readiness Assessment team is finishing their review. The team will likely issue several pre-start findings related to conduct of operations, training, radiological protection, and management systems.

SRNS classifies the room exhaust fan inlet dampers and ductwork for 5th/6th Level as a safety significant passive design feature. The safety basis requires that these dampers remain open following a seismic event to ensure an airflow path exists from HB-Line to the H-Canyon exhaust ventilation system. Keeping these dampers open allows air to be pulled through the sand filter and stack which mitigates the consequences of a post-seismic fire. This week, construction workers left a damper in the locked position following the installation of a damper locking device. A shift operations manager discovered the situation, entered the applicable limiting condition for operation, and had the damper locking device returned to the correct position. A second issue was that the planner never updated the construction work package, which was started last year, to reflect that this equipment is now safety significant. This had several impacts: 1) no quality assurance review of work package, 2) the weld rod and the new part were general service, 3) no quality control inspector present during work, and 4) no verification of welder's qualifications

Savannah River National Laboratory (SRNL): SRNL is making steady progress in resolving ventilation and fire protection equipment issues. SRNL completed a major upgrade to their E-Wing ventilation system that addressed seven Recommendation 2004-2 gaps. Furthermore, SRNL began installation of E-Wing supply and exhaust fan interlocks and is making preparations to start replacing some of the 146 tape-in-place high efficiency particulate air filters still in use at the main laboratory. Recent fire protection upgrades include installing a wireless fire water tank monitoring system, replacing pump valves that were 50 years old or non-compliant, and resolving dozens of sprinkler configuration issues and obstructions. While a recent inspection and analysis of the fire water storage tank concluded there was no immediate threat of failure, the tank's roof structural supports are corroded and portions of the interior coating are peeling.

SRNS Staffing: SRNS is starting to hire workers to support upcoming 235-F deactivation work. In addition, SRNS is beginning to hire new operators, engineers, construction workers, and maintenance planners and mechanics.