DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 13, 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 September 13, 2013

2013 Site Emergency Preparedness Exercise: The scenario involved a simulated dropped transuranic waste drum and a contaminated, injured worker at the Solid Waste Management Facility (SWMF). Based on preliminary reports, the response at the incident scene and the Emergency Operations Center was adequate. However, when the controller in the SRS Operations Center provided the initial conditions to the Emergency Duty Officer (EDO), he mistakenly read the briefing for SWMF also. This prompted the EDO to start monitoring SWMF radio communications and allowed the EDO to hear the initiating radio call from the incident scene to the SWMF control room. The EDO then requested that the fire department be dispatched to SWMF before the SWMF shift operations manager had even called the EDO to report the accident. Furthermore, the EOC is responsible for the overall direction/control of the response and strategic planning, but much of the activity is focused on information collection/dispersal, monitoring status, and being reactive. The site rep believes it would be beneficial if the response priorities and tasks for the next 30, 60, and 120 minutes were clearly defined and tracked, such as defining up front what will constitute a stable incident scene and exactly what actions are needed to modify protective actions. Furthermore, the site rep has repeatedly observed confusion by the recovery planning teams on how to prepare a recovery plan outline. Additional training and/or examples might speed up the preparation of this outline and clarify the expected content. Finally, if this had been a real event, reducing the working zone around the drum and recognizing a breeze inside the pad building, may have reduced the potential spread of contamination.

Tank Farms: Recent sample results indicate that Tank 11's chemistry no longer complies with the Corrosion Control Program limits. Tank 11 is a Type I tank with two known leak sites. Earlier this year, SRR transferred rain/ground water from its annulus, which also had a failed preheater, to the primary tank. SRR also made a transfer of inhibited water and two transfers of Tank 12 wash water into Tank 11 this summer. SRR calculated that they need to add 16,700 gallons of caustic this month to increase the hydroxide concentration.

The site rep met with SRR to review what maintenance and inspections are conducted on annulus transfer jets and the contingency transfer system (CTS) and their last completion dates. In addition, the site rep confirmed that engineers were updating the Contingency Transfer Database to reflect current contingency storage space, facility configuration, and unique waste characteristics. While tank farms personnel periodically invoke their annulus leak investigation procedure to respond to leak detection alarms (usually rainwater), SRR does not conduct drills to practice setting up the CTS. SRR is considering making the CTS a potential continuing training topic.

HB-Line: SRNS spent much of the week trying to clearly define the corrective actions from the DOE Readiness Assessment, ensuring that completed actions were adequate to close findings, and improving the rigor of the Corrective Action Review Board. SRNS will be providing nuclear safety culture training to the facility leadership team next week.

SRNS also investigated two issues this week. First, an operator did not use his procedure to perform a step and ended up trying to start the incorrect room exhaust fan. The shift operations manager took the necessary actions to bring the fans into the desired condition. Second, a DOE facility representative noted that some shifts were not correctly documenting on their watchbill how they were complying with the minimum staffing criteria from the Technical Safety Requirements.