DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 12, 2016

TO: S. A. Stokes, Technical Director
FROM: D. L. Burnfield and Z. C. McCabe Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending February 12, 2016

Tank Farms: The site rep observed an emergency drill in tank farms. The drill involved an injured employee, a spill of high-level waste, and loss of ventilation. While each of the objectives of the drill were met by the team, the control room personnel made several noteworthy mistakes. These errors included a lack of understanding of radiological conditions by control room operators, a failure to maintain formal communications, and a failure to understand the dose limitations for entering a high radiation area to perform emergent operations.

Recommendation 2012-1, *Savannah River Site Building 235-F Safety:* The risk reduction team previously identified cracked windows and other potential problems including an issue with the maintenance side window on cell 6 (see 12/18/15 and 1/29/16 weekly reports). The site believed that this single pane window had a wire penetrating through the window. Further walkdown and discussions with past facility personnel identified that the window was cracked in approximately 1980 and has been caulked and taped over since that time. The site rep questioned if additional controls should be established until the window can be analyzed for structural integrity and SRNS management agreed to determine if these controls are necessary.

Defense Waste Processing Facility (DWPF): The site representative observed a fact-finding concerning a Lockout/Tagout (L/T) that was improperly hung. During a monthly L/T assessment, DWPF personnel discovered a lock on a valve that was documented as having been hung but still had a key in it. There was an unidentified key in the lockbox where the key was supposed to be stored while the lockout (L/O) was in place. The L/O was placed on January 9, 2016. The original lock that was placed on the valve would not shut properly, so the operator removed the lock and disposed of it. A second lock was then placed on the valve and closed with the key still in the lock. With the key from the original lock still in hand, the operator forgot to remove the key from the lock. DWPF personnel believe that the key that is in the lockbox was the key from the original lock. The L/T order used in the field includes a space to record the key number for verification, which is parenthetically described as optional. Contrarily, the site procedure for L/T states to secure verification by "[e]ntering the key numbers in the associated block titled 'Key Number (optional)' on the L/T order." DWPF personnel are planning to consult with the committee governing L/T to determine if recording L/T key numbers is intended to be a requirement.

L-Area: L-Area personnel were planning to remove two empty spent fuel baskets from the transfer bay and prepare them for shipment. Before the pre-job briefing, the shift operations manager noticed that the shipping container closure instructions referenced in the procedure were not included in the assisted hazards analysis (AHA). L-Area personnel determined that they could proceed with removing the baskets and placing them into the shipping container without closing the container, which would preclude the use of the closure instructions. During the pre-job brief, the senior supervisory watch noticed that the closure instructions had pre-use steps listed for completion prior to placing anything in the basket. L-Area personnel suspended the removal of the baskets from the transfer bay until the procedure could be revised and an AHA performed on the closure instructions.