

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 30, 2018

**TO:** S. A. Stokes, Technical Director  
**FROM:** M. T. Sautman and Z. C. McCabe, Resident Inspectors  
**SUBJECT:** Savannah River Site Activity Report for Week Ending March 30, 2018

**Recommendation 2012-1/235-F:** The resident inspector and staff members Mark Wright and David Cleaves reviewed fire protection at 235-F. This involved walking down the facility to see what fixed combustibles have been removed, what ignition sources and fixed combustibles are still present and their proximity to material-at-risk, inspecting the condition and penetrations of fire delay walls, and reviewing the effectiveness of the transient combustible control program. The staff also chose two isolated and locked rooms to verify their current condition. The actual de-energization of locked rooms is not as extensive as that in the De-energization Plan. In several cases, the breaker supplying the room lighting and receptacles could not be isolated without rewiring because they also supplied locations that are still needed. While many of these lights were turned off, some lights could not be turned off with a switch and remain on inside locked rooms. These are documented in a memo. The staff tested several receptacles in locked rooms and found some of them to still be energized and there is not a list of which ones are energized and which are not although there are some notes on circuit breaker panel schedules.

**Defense Waste Processing Facility:** While the facility was in a reduced ventilation configuration (only two Zone 1 exhaust fans running, supply fans at 0 percent output) and manipulating the fans to support a repair, the facility experienced a pressure transient in the sand filter inlet plenum pressure. This tripped the safety-significant inlet plenum safety train interlock, which shut down Zone 2 and 3 ventilation and Zone 1 supply. The pressure transient was so fast that the pressure transmitter output did not show that the Limiting Condition for Operation (LCO) limit was ever exceeded. The shift on watch at the time did not enter the LCO condition, but a subsequent one did as a conservative measure. The conclusion of a further SRR review was that the LCO condition was not intended to manage very short pressure transients, but rather for a more sustained situation.

**H-Canyon:** The resident inspector observed an H-Canyon operator complete the pre-checks and standby duties in the warm gang valve corridor for a steam jet transfer between two H-Canyon vessels. This action implements a Justification for Continued Operation (JCO) compensatory measure that requires an operator to manually stop a transfer within five minutes of an earthquake in order to prevent a radiological release. The JCO also requires operators filling this role to be in the vicinity of the gang valve corridor during certain transfers, which can occur multiple times in a shift. The procedure used to implement this control requires the standby operator to ensure their travel path to the valve is free of any obstructions that may hinder them performing the action after an earthquake. Although the operator was knowledgeable of the reason for performing the task, it is clear they did not understand that the intent of ensuring their travel path was clear. Instead of confirming their path was clear, the operator confirmed verbally with the control room operator that the gang valve cam bar travel path was clear and free of obstructions. In this particular instance the travel path to the gang valve was clear and the transfer was only intended to last approximately 15 minutes so the operator did not leave the immediate area.