

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 24, 2011

TO: T. J. Dwyer, Technical Director
FROM: M. T. Sautman and D. L. Burnfield, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending June 24, 2011

F-Area: During a recent hydrant flow test, the fire water suppression system became “inoperable” because none of the fire water pumps was operational. Because of communication and coordination issues, F/H Laboratory did not comply with their Technical Safety Requirements (TSR) and enter two Limiting Conditions for Operation. The Fire Department (FD) procedure required the F-Area control room to be notified in advance of the test, but they mistakenly called the F-Tank Farms control room instead. Infrastructure Services (IS) owns the fire water supply system and authorized the test. The facility shift manager was not aware the test was being conducted and his control room does not receive fire water supply system alarms. The pre-job briefing only included FD personnel. Neither the FD or IS realized the general service fire water supply system could impact the F/H Laboratory TSR. When the FD encountered difficulties during the test, possibly due to a valve that was not fully closed, they asked the IS operator to shutdown the electric fire water pump. The operator shut down the pump (which then restarted and tripped off), but then incorrectly shut down the remaining operable diesel fire water pump too. This caused the fire water system pressure to drop too low.

Tritium Facilities: The site rep observed the second phase of seismic emergency drills. This involved the Tritium Extraction Facility and H-Area New Manufacturing simulators, the H-Area Old Manufacturing control room, and the Operations Support Center. While additional training and practice is still needed, performance was noticeably improved from the previous table top drill. The facility control rooms communicated and coordinated much more plus teams assessed damage and looked for victims. The next phase will involve graded drills.

F-Tank Farm: F-Tank farm personnel are using robotic, tracked “crawlers” to assist with inspections and sampling of waste at the bottom of nearly empty tanks. SRR inserted a new crawler into tank 6, but its left track became inoperable after only doing minimal sampling. SRR determined that the crawler should be retrieved from the tank for repair and reuse. The site rep had previously commented on the need to flush crawlers before removing it from the tank. Tank farm personnel developed a procedure for removing the crawler and conducted mock-up training on this activity. This flushing allowed SRR to safely remove the failed crawler this week and package it for further decontamination and repair.

Solid Waste Management Facility (SWMF): Last month, operators brought a waste drum to Pad 4 for real-time radiography (RTR). The operators did not follow their written instructions for storing the drum on Pad 4. Before they conducted RTR, they did not store the drum in the required high container storage array. After performing RTR, they stored it in a high container storage array, but the wrong one. This caused them to exceed the 4500 plutonium-239 equivalent curie storage limit for that high container storage array. SWMF personnel failed to notice that the drum was stored incorrectly until they performed the monthly surveillance on the pad a few weeks later. Once they found the drum was in the wrong location, they correctly entered the Limiting Conditions for Operation and moved the drum to the correct location.

High ambient temperatures set off the high temperature alarm on a breathing air compressor. The workers stopped repackaging transuranic waste and exited the area per their emergency exit procedures. SWMF personnel have since provided spot coolers on the breathing air compressor to keep the compressor operating within limits and to prevent emergency evacuations.

K-Area Material Storage: The site rep observed the oral board for a first line manager in K-area. The site rep agreed with the conclusion of the Board.