

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 13, 2012

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 January 13, 2012

HB-Line: After completing fire damper interlock testing, operators encountered difficulties in restoring the ventilation system to normal because they could not get the airflow of one of the supply fans to stabilize at the desired rate. Although the procedure directed them to manually activate an interlock in this situation, they repeatedly attempted to stabilize the flow by adjusting the flow rate both manually and automatically outside of their procedure even though this activated an interlock and an alarm. The situation worsened when the first line manager (FLM) did not use 3-way communications when he directed an operator to place a room exhaust fan in the Off and then Standby positions. The operator only heard to turn it Off and the FLM did not verify afterwards that the fan was now in Standby. When the FLM once again turned the pressure controller to automatic (outside of procedure), the building momentarily pressurized to 0.5" WC. This activated an interlock, shutting down the supply and room exhaust fans. The operators and FLM passed up several opportunities to call a Time Out and/or contact the shift operations manager before the building pressurized. Contributing to the event was the fact that the crew had been working several hours without a break, was near the end of the last shift of their rotation, and was distracted by multiple phone calls from people trying to reenter HB-Line. Facility management is treating the conduct of operations and human performance issues associated with this event seriously. Engineers are also investigating the operability of the fans and damper. Since last June, the supply fan had a site condition tag indicating it could no longer produce the desired airflow.

Defense Waste Processing Facility (DWPF): The site rep met with operations staff to discuss the activation of several alarms of potential concern over the last 8 months (see 12/30/11 report). Operator logs showed that each of the activations of the lower flammability limit alarms was associated with the performance of "As-Found Checks" or calibrations using a hydrogen calibration gas. Repeated activations of a low air purge flow alarms occurred during the startup of a safety grade nitrogen system. Other frequent pressure and level alarms resulted from bubbler blowdowns, usually to reduce solids accumulation. While these alarm setpoints indicate an undesirable condition during routine processing, it is acceptable to exceed them during planned blowdowns. DWPF is going to reclassify one of their high temperature alarms because it really reflected a transition from standby to operations mode rather than an "alarm" condition.

Tritium Extraction Facility: SRNS is investigating why a continuous air monitor located in the Remote Handling Building exhaust fan room probed 1400 dpm alpha. Isotopic analysis indicated this was primarily U-235 and its daughter Th-231. SRNS conducted additional surveys, but did not detect any additional contamination or potential sources of cross-contamination.

L-Area: The site rep inspected the peristaltic pump and bag filter that will be used to sample the biological growth on some spent fuel containers (see October 28, 2012 report). Several basin FLMs and basin operators were also disqualified when a trainer discovered that their training standard forgot to include the retraining frequency for one of their job performance measures.