

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 13, 2008

**TO:** T. J. Dwyer, Technical Director  
**FROM:** M. P. Duncan and M. T. Sautman, Site Representatives  
**SUBJECT:** Savannah River Site Weekly Report for Week Ending June 13, 2008

M. Sautman was offsite this week.

**Modular Caustic Side Solvent Extraction Unit (MCU):** The Site Rep observed the operation to replace the filter media from the decontaminated salt solution coalescer and noted that the startup of the breathing air compressor did not require use of a procedure. This practice is different than when operators start one up in F-Canyon (see 6/6/08 report). Lead blanket placement reduced the dose rate in the cell to a maximum of approximately 200 mrem/hr. The use of shielding, thorough planning, and several practice runs using mockups helped keep the overall dose low. The worker doing the actual filter media replacement was in and out of the cell within 46 minutes. The filter media is at the Savannah River National Laboratory for testing, and MCU is awaiting restart until after test results are received this weekend. (See 5/23/08 and 6/6/08 reports).

**Tritium Extraction Facility:** The Site Rep observed handling activities of a recently received legal-weight truck cask, including a critical lift where the cask was lowered into the Cask Decontamination Area. Surveys revealed minor contamination that was easily cleaned.

**F Tank Farms:** Chemical cleaning using 8% oxalic acid additions to Tank 5 began this week. The Site Rep observed good independent verification of the dedicated transfer path. (See 6/6/08 report).

**Defense Waste Processing Facility:** A small fire occurred in two adjacent sample cells, which burned at least one bag of radioactive waste, partially melted several plastic containers, and damaged manipulator boots and other material in the cells. No one was around when this occurred. It was noticed by a laboratory technician in the morning. No flames or smoke were observed. The fire department was dispatched. Surveys outside of the cell did not find any evidence that contamination had spread into the area inhabited by personnel. The fire department is investigating. Two possible initiators were electrical (an electrical connector to a light may have been damaged) and chemical. The day before, workers performed housekeeping activities, removing 24 waste bags and cleaning the cell with 50% nitric acid and water. The sampling capability remains operational; however, all activities in those cells are on hold.

A breathing air hose was cut by a closing door during an entry into the Crane Maintenance Area. The worker responded appropriately, evidence that a recent site-wide management initiative is helping to reinforce the expectation that workers immediately remove their plastic suit top upon total loss of breathing air. No personnel contamination resulted and no bioassay was required. (See 5/23/08 report).

**H-Canyon:** A shipping container containing waste sent from H-Canyon to the burial ground in E Area was being prepared for unloading in an engineered trench when operators noted that a yellow substance was leaking from it. Radiological control probing indicated 8,000 dpm alpha and 200,000 dpm beta-gamma. Given the potential that some had leaked onto the roads during inter-area transit, the site sounded an alarm and ordered that all personnel remain indoors in H Area. The roads were barricaded while surveys were performed. No contamination was found on the roads or on any cars that had driven through the area. Two spots of contamination were later discovered at H-Canyon where the shipping container was staged (highest was 6,000 dpm alpha and 200,000 dpm beta-gamma). Overall, the response was good and well coordinated. The source of the liquid will be investigated. H-Canyon's waste packaging and shipping program was temporarily suspended pending a review to determine whether or not corrective actions will be required.