

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 23, 2008

TO: J. Kent Fortenberry, Technical Director
FROM: M. P. Duncan and M. T. Sautman, SRS Site Representatives
SUBJECT: SRS Weekly Report for Week Ending May 23, 2008

DNFSB Activity: Board member, Larry Brown, and other staff reviewed operations at H- and F-Canyons, F- and H- Tank Farms, F/H Laboratory, 512-S, and H-Area New Manufacturing. Messrs. Hadjian and Sharpless reviewed seismic and structural issues at H-Canyon and related facilities.

Contract Transition: The Site Reps met with Savannah River Nuclear Solutions to discuss the status of contract transition. The Site Reps will be reviewing their plans for conducting due diligence reviews of facilities and authorization bases as well as observing some walkdowns.

Modular Caustic Side Solvent Extraction Unit (MCU): MCU did not operate this week due to persistent high differential pressures in the Decontaminated Salt Solution coalescer. The coalescer media had been changed right before hot operations. Repeated soaks and flushes with 5.5% nitric acid had little impact this week. A 16-hour soak with 13% nitric acid showed minor improvements and a 24-hour soak is in progress. Because testing demonstrated that nitric acid should clean any sodium aluminosilicates, the plugging might be due to metals fines from recent equipment tie-ins. In addition, an attempt to remove potential pluggage of the siphon break holes by transferring waste between the two Salt Solution Receipt Tanks was unsuccessful. (See 5/2/08 report).

F/H Laboratory: Last week, personnel performed work on a high activity drain tank in a shielded cell. Due to the potential for significant airborne radioactivity, workers were in plastic suits with fresh air hoses. As workers were exiting, the breathing air attendant accidentally disconnected the breathing air hose for a worker who was still near the bottom of the cell. When he noticed he had lost his air supply, he immediately climbed the 30' ladder to exit the cell and took off the top of the plastic suit once he reached the top. Bioassay samples were required. The direct cause of the event was poor communication; proper repeat-backs of instructions would have prevented the problem. Additionally, workers are trained to immediately remove plastic suit tops upon loss of breathing air. SRS is looking at a new plastic suit design that has a tube that can provide emergency filtered air.

Solid Waste Management Facility: Sixteen of the 28 bulged transuranic waste drums have been removed from concrete culverts. The bulges in the six drums that have been vented so far appeared to be due to overfilling rather than overpressurization. (See 3/7/08, 3/30/07, and 3/16/07 reports).

Standing Orders: The DOE Standard on standing orders states that long-term orders are relevant for several days, weeks, or months, but they should include a cancellation date. It also states that orders in effect for an extensive period of time should be incorporated into a procedure or policy. A planned revision to the site procedure includes a 180-day expiration date. At day 90, a procedure would be initiated if a longer term communication is anticipated. (See 1/12/07 report).

Fire Department: After being out-of-service for 18 days in March, the site's only ladder truck was down for an additional 28 hours in April. It has a history of requiring high maintenance. In 2007, this vehicle required 684 hours of maintenance. (See 5/2/08 report).

Safety Class/Significant Diesel Generators: Since 2006, 16 of 250 engine monthly tests were failures. A component analysis of the failures has led to recommendations to clean potentiometers during the annual engine preventive maintenance and to evaluate removing external potentiometers.