

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 19, 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 September 19, 2008

Procedures: While a template has helped eliminate inconsistent formats in maintenance instructions (see 7/13/07 and 7/27/07 reports), a Site Rep review of operating procedures from 7 M&O facilities identified similar issues. For example, there were four different formats used for identifying that a step implemented a Technical Safety Requirement. There were five different formats (among 6 facilities) used for identifying that a step implemented a criticality safety control. There are similar inconsistencies for transportation safety requirements. While none of the designators ended up being used for differing applications, a little coordination could help minimize the possibility of confusion when operators get transferred between facilities.

F-Canyon: DOE has decided to stop any additional remediation of transuranic waste drums in F-Canyon because it is more cost effective to batch these drums with a future campaign. The remaining drums (<200) will be remediated along with the high Pu-238 drums that are to be excavated from Pad 1 in the future.

Criticality Safety: At the Solid Waste Management Facility, a high fissile gram equivalent drum was found in a stacked array and not appropriately labeled. When this container was dispositioned in July after a drum assay, the operator did not verify if this drum potentially contained > 1 g beryllium and thus incorrectly screened it against a higher criticality control limit. A review of other beryllium drums did not find any other similar violations.

The first time the H-Canyon receipt tank was sampled since resolving recent criticality safety issues (see 8/1/08, 8/8/08, and 9/12/08 reports), an operator made two transcription errors when recording total uranium concentrations. Neither error was identified by the independent verifier. Luckily, the Shift Technical Engineer recognized that the calculated fissile solids was abnormally high and began an investigation. No nuclear safety controls were violated. Expected ranges may be added to procedures to allow atypical results to be identified quicker.

F-Tank Farms: The contractor replaced four couplings and one tee on the tank 19 sand mantis because they were underrated. An additional five items were replaced due to insufficient markings. Four custom manufactured parts were successfully tested. Tank 18 components are being inspected. (See 9/5/08 report).

Savannah River National Laboratory: DOE facility representative oversight of the Research Operations Department from several months ago identified several issues associated with Conduct of Operations, including procedure compliance, lockout/tagout, labeling, confined space permit administration, and others. Facility management has since developed corrective actions to improve, which included retraining all of its operators on basic Conduct of Operations expectations, coaching, senior supervisory watches, and revising procedures.

Modular Caustic Side Solvent Extraction Unit (MCU): Because acid cleaning was not having the desired effect, the waste inventory at MCU is being removed so that the Decontaminated Salt Solution coalescer media can be replaced next week.