

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 9, 2000

TO: J. K. Fortenberry, Technical Director
FROM: D. F. Owen, RFETS Site Representative
SUBJECT: RFETS Activity Report for the Week Ending November 10, 2000

Plutonium Stabilization and Packaging System (PuSPS). The PuSPS project has continued to experience delays to starting combined packaging and stabilization system operability testing due to delays in testing several sub-systems. These subsystems include the PuSPS Data Management System (a system for recording stabilization times and temperatures and other data), the stabilization furnaces, contamination monitoring equipment, and the PuSPS chilled water and helium re-circulation systems. The PuSPS project now plans to conduct system operability testing in late November. While the most recent project schedule forecasts PuSPS startup in January 2001, Kaiser-Hill management is revisiting the efforts and schedule logic needed to attain full operational readiness, conduct contractor and DOE readiness reviews, and obtain authorization to startup. A revised project schedule is to be issued by November 15th.

As previously reported, RFETS determined that the sintered metal filter in the inner can bung will not confine contamination as had been assumed and that corrective action is necessary. The PuSPS project is proceeding with welding a new filter and filter guard over the existing filter on the approximately 1,700 inner can bungs manufactured to date. PuSPS project personnel indicated to the site rep. that dimensional and/or go/no-go checks are being developed to confirm that the filter welding did not distort the portion of the bung that will form the DOE-STD-3013 inner can closure cap. (3-A)

Recommendation 94-1 Progress. RFETS has completed repackaging of all known salt residues (approximately 16,000 kg) into containers in support of the DOE 94-1 Implementation Plan commitment to repackage all salt residues by December 2000. During the next few weeks, RFETS plans to finish placing all the repackaged salt residue containers into robust pipe overpack containers in preparation for disposal at WIPP as called for by the DOE 94-1 Implementation Plan. The glovebox line used for the salt residues in Building 371 is being readied for blending and repackaging of sand, slag and crucible residues containing greater than 10% plutonium (see the October 6th site rep. report). (3-A)

Tank Decontamination Technology. Kaiser-Hill has been working to deploy a system to decontaminate several stainless steel tanks previously used to store actinide solutions in Building 371. The decontamination involves spraying of a cerium nitrate solution on the inner walls of the tanks to etch off several mils of the inner wall surface. The actinide bearing solution would be collected and processed through the Caustic Waste Treatment System in Building 371. Kaiser-Hill expects that this etching process will sufficiently decontaminate the tanks to allow for disposal as low-level waste thereby avoiding the tank size reduction that would be required for disposal as transuranic waste. System equipment is to be delivered to RFETS by late November and a demonstration on uncontaminated tanks in Building 371 is planned in December. (3-B)