

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 23, 2001

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director

FROM: C. H. Keilers / R. T. Davis

SUBJECT: SRS Report for Week Ending February 23, 2001

Bamdad and Ogg were on site this week reviewing Americium-Curium (AmCm) stabilization plans.

HLW Tank 6: WSRC has now completed tank wall inspections through the East and West risers with 6 identified leak sites. Inspection through the final accessible riser, the North riser, should be complete early next week providing about 65 percent coverage of the primary tank wall. The South riser is not accessible because of interference with annulus transfer equipment. Readiness activities to transfer waste from Tank 6 to Tank 8 have been completed. WSRC continues to evaluate options for this transfer and the potential impacts on other HLW activities (e.g., DWPF operations, sludge batch 2 preparations). A WSRC proposal and technical basis are expected after the inspections are completed next week. WSRC will also begin next week to inspect the primary wall of Tank 5, which was planned to be the 2nd old-style (Type I) tank used to store DWPF recycle waste.

HLW Tank 49: WSRC is nearing the completion of the first phase of decomposing the phenylborates in Tank 49 (i.e., maintaining the tank at 40°C). Measured benzene concentration remains low during this activity – about 80 ppm in the vapor space. WSRC will sample the tank this weekend and verify that decomposition is as expected. Based on satisfactory results, WSRC expects to begin adding copper catalyst to the tank next Wednesday.

HLW Operations: Earlier this week, an operator was contaminated during installation of a glovebag to support a riser plug removal on Tank 32. Radiological Control personnel took appropriate action to decontaminate the operator. Subsequent investigation found a large number of work control weaknesses in recognizing and addressing radiological hazards. WSRC is taking corrective actions to reemphasize the importance of radiological work controls for HLW activities.

Recommendation 94-1: This week, H-Canyon began refreshing the highly enriched uranium (HEU) solutions in the outside single-shell tanks (site rep weekly 12/1/00). Refreshing involves bringing solution back into the canyon, washing out solvent residual, concentrating the uranium, and transferring the solution to the large outside double-shell tank (the EUS tank). It results in a net risk reduction, since it addresses several criticality, seismic, and other accident scenarios. The start of refreshing has been delayed about 6 weeks while the facility investigated to determine the cause of low flow rate. Late last week, workers found the blockage – an undocumented, nearly-complete teflon gasket installed in an unused run, possibly for longer than 20 years. The gasket had a 1/10th inch diameter hole in the center. WSRC believes refreshing can be completed by the end of July.

K-Area Material Storage (KAMS): Rocky Flats has several hundred plutonium contaminated HEU parts that need to be shipped to SRS by September 2002 to support the deinventory schedule. To meet this schedule, DOE-SR directed WSRC this week to discontinue design work for storing this material in the 105-K Assembly Area and instead plan on storing it in KAMS in pipe over-pack containers. This will require safety analyses and authorization basis revisions. Repackaging from shipping containers to pipe over-pack containers in K-Area may particularly require scrutiny because of the current lack of filtered ventilation and reliable confinement for the building or rooms.