

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 11, 2006

**TO:** K. Fortenberry, Technical Director  
**FROM:** R. Quirk and W. Linzau, Hanford Site Representatives  
**SUBJECT:** Activity Report for the Week Ending August 11, 2006

Outside expert (OE) P. Rizzo was on site this week to review drilling activities at the Waste Treatment Plant (WTP) and the preparations for future down-hole logging of the deep boreholes.

Waste Treatment Plant: The site rep and OE met with the Pacific Northwest National Laboratory (PNNL) manager of the WTP Seismic Boreholes Project, an ORP representative, K. Stokoe of the University of Texas (UT) at Austin, and B. Redpath of Redpath Geophysics to discuss the data collection activities during the ongoing geological investigation at the WTP site. During the walk-down of the drilling operation, it was noted that Rock Quality Data (RQD) was not being collected during core retrieval. PNNL and ORP committed to resolving this observation. The general consensus is that a fault exists (see Activity Report dated 8/4/06) based on observations of the corings and the additional deep boreholes will confirm the age and nature of the fault. Stokoe and Redpath tested and calibrated their equipment in an existing borehole near the WTP in preparation for down-hole logging of the shear wave properties using the three new boreholes. Stokoe demonstrated the use of the UT mobile Tri-Axial Vibrosies (T-Rex) that provides the vibratory source used during the testing in conjunction with the geophones provided by Redpath.

Solid Waste Operations Complex: The site reps met with project personnel to discuss ongoing waste drum retrievals from Trench 4 of Burial Ground 218-W-4C. The site reps observed that the relocatable weather cover recently placed over the work area was securely fastened to a number of concrete blocks. A number of drums in module one (eastern most) were significantly deteriorated and some appear to have sunken into the asphalt. Project personnel reported that their standard retrieval methods will not work for these drums. The project is evaluating the best method to retrieve these breached drums, including repacking of the contents into solid waste boxes using additional radiological containment.

The site reps also observed a number of non-drum waste containers with wire screens (bird cages) stored in the trench that store unirradiated fuel. The site rep requested additional information regarding the safety of the storage location as well as the final disposition path.

The recent Quarterly Startup Notification Report includes a proposal to use a Readiness Assessment rather than an Operational Readiness Review (ORR) for the startup of retrieval activities in the 200 East Low Level Burial Ground. The arrangement of drums in the 218-E-12B burial ground is different from other burial grounds and may require different procedures. This proposal is still being evaluated by the Richland Field Office.

K Basins Closure: A safety-significant valve in the hose-in-hose transfer system failed its surveillance test. Resolution of the problem may delay the start of the Contractor ORR.