

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 22, 2006

**TO:** K. Fortenberry, Technical Director  
**FROM:** R. Quirk and W. Linzau, Hanford Site Representatives  
**SUBJECT:** Activity Report for the Week Ending December 22, 2006

Solid Waste Retrieval Operations: The site reps met with Fluor Hanford, Inc. management to discuss accomplishments and planned activities for the drum retrievals in burial grounds 218-W-4C (4C), 218-W-4B (4B), and 218-E-12B (12B). Retrievals were initiated in 4B with the removal of one drum in late November and elevated levels of carbon tetrachloride were detected during vapor sampling. Vapor extraction with charcoal and HEPA filtration will be used to lower concentrations to safe levels prior to conducting additional retrievals. This technique was successfully used previously in 4C. Preparation for retrievals in 12B commenced with the notable erection of a large weather enclosure and the creation of the processing area for drums. The arrangement of the drums in 12B is different from other burial grounds in that the drums were placed on their side rather than stacked vertically end-to-end. The project believes there is a possibility that remote handled (RH) drums could be encountered. The RH drums would have to be overpacked and stored until the capability to process them is developed. The DOE Operational Readiness Review is scheduled for June 2007 followed by startup in August.

Tank Farms: CH2MHill issued the required biennial report on the single-shell tank (SST) removal sequence. The report indicates that completion of retrievals from the SSTs will be in January 2032. Several significant assumptions were used in the analysis including: (1) the WTP will commence treating tank waste in December 2014 and the ramp-up of the production phase begins in February 2016; (2) the Demonstration Bulk Vitrification System will be refurbished for extended use; (3) a new pretreatment facility in the 200 West Area for removing cesium from tank waste will be operable in February 2014 and the low activity waste will be treated using bulk vitrification; (4) a supplemental treatment plant will also be operable in 2016 in the 200 East Area to treat "excess" pretreated low activity waste from the WTP; and (5) a mobile transuranic waste drying and packaging facility will commence operation in October 2013. The Office of River Protection (ORP) has requested the contractor to update the overall plan for the tank farm operations assuming a later date for WTP startup.

The site rep met with ORP and contractor management to discuss actions that are being taken to ensure safe operations given the recent increase in tank farm activities (see Hanford Activity Report 12/8/3006.) This week two DST transfers were performed and the first retrievals from C-108 were completed.

Waste Treatment Plant (WTP): The site rep accompanied the ORP WTP project manager during qualifications of WTP facility representatives (fac reps) at their respective facilities. The facility walkdowns were the final step in the qualification process and the questions focused on the flowsheet and authorization basis. Each of the two fac reps observed passed with a requirement to lookup additional information. These fac reps are the first to qualify to the new WTP qualification card and were previously qualified under the Tank Farms qualification program.