

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 19, 2007

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** R. Todd Davis/Donald Owen, Oak Ridge Site Representatives  
**SUBJECT:** Activity Report for Week Ending October 19, 2007

A. Highly Enriched Uranium Materials Facility. In the Board's quarterly project report to Congress dated October 17, 2007, the Board notes a new issue associated with the water supply for the safety-significant fire protection system for the Highly Enriched Uranium Materials Facility (HEUMF). Currently, Y-12 personnel plan to use the site potable water system, which is not classified as safety-significant, to provide this water supply. The Board's report notes that this is not consistent with the HEUMF design basis requirements. This week, the site reps. discussed this issue with YSO and BWXT management. To resolve this issue, BWXT plans to provide a recommendation on a path forward to YSO next week. The recommendation is expected to include safety-significant pressure monitoring of the fire water supply to help identify a supply problem. The site reps. also discussed the potential need for increased control of key valve alignments in the potable water system. In the long term, BWXT intends to propose that the HEUMF fire suppression system be supplied by new fire water tanks that are planned for the Uranium Processing Facility.

B. Uranium-233 Disposition at ORNL. Isotek has been preparing to receive, handle and store up to 12 traps containing uranium-233 hexafluoride to support removal of fuel from tanks at the Molten Salt Reactor Experiment (MSRE) at ORNL (see the 8/24/07 site rep. report). DOE-ORO has approved conduct of a contractor Readiness Assessment (RA) to confirm readiness for this campaign. The Isotek RA was recently completed and reports of the RA and the DOE-ORO line management oversight review were issued late last week indicating that Isotek is ready to receive the uranium-233 hexafluoride traps at Building 3019. DOE-ORO management stated that this campaign is now anticipated to start in late-November based on current MSRE plans.

C. Oak Ridge Transuranic Waste Processing. Foster Wheeler is planning to expand the currently approved scope for contact-handled transuranic waste processing to include treatment of liquids in feed waste. The liquid treatment involves solidification and absorption with chemical additives. A revision to the Documented Safety Analysis (DSA) for the Transuranic Waste Processing Center (TWPC, formerly the Melton Valley Waste Processing Facility) addressing liquids treatment is in development. DOE-ORO has approved a contractor RA to confirm readiness for this change. The RA is planned in early-2008.

Foster Wheeler is also planning to establish a capability to vent waste containers at the TWPC. DSA changes are in development. DOE-ORO has approved contractor and DOE Operational Readiness Reviews (ORRs) for confirming readiness for this new capability. DOE-ORO currently intends to combine review for startup of waste container venting with the planned ORRs for startup of the remote-handled transuranic waste processing campaign (see the 7/13/07 site rep. report). The ORRs are planned in early-2008

D. Integrated Safety Management System Review. This week, an independent corporate review team began their assessment of the BWXT Y-12 Integrated Safety Management System. The team is focusing their review on depleted uranium operations and Y-12 construction activities. The review team is expected to complete their evaluation next week.