

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 5, 2007

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** R. Todd Davis/Donald Owen, Oak Ridge Site Representatives  
**SUBJECT:** Activity Report for Week Ending January 5, 2007

A. Warehouse Fire - Update. BWXT concluded their independent investigation of a small fire in the Warehouse in early-November (see 11/3/06 site rep. report). This week, the site reps. met with BWXT management to discuss the corrective actions that were developed based on the Judgements of Need identified by the investigation team. These actions include the following:

- Revise the Job Hazard Analysis process to ensure that legacy materials (or materials with limited characterization) are adequately addressed
- Review the process description requirements to ensure the job scope is fully defined
- Update the pre-job brief form to address the potential for a change in conditions
- Screen Warehouse projects to ensure an appropriate hazard analysis has been performed
- Develop a disposition path for the materials that caused the small fire

B. Uranium-233 Disposition at ORNL. As reported on December 8<sup>th</sup>, approval actions for Critical Decision-2/3A (approve performance baseline and start long-lead equipment procurement) for the Uranium-233 Down-blending and Disposition Project in Building 3019 were planned in late-December. DOE-ORO management informed the staff and site reps. this week that these approval actions have been delayed for several weeks to complete environmental impact assessment requirements. DOE-ORO also noted that Isotek is now expected to assume responsibility for Building 3019 operations from UT-Battelle by the end of January, pending DOE Headquarters approval.

C. Wet Chemistry Operations. This week, BWXT successfully conducted multiple secondary extraction operations under the Justification for Continued Operations associated with potentially high concentration organics (see 7/7/06 and 9/22/06 site rep. reports). This activity provides additional feed for denitrator operations and will allow BWXT to move forward in processing the backlog of solutions in the Enriched Uranium Operations Building.

D. Enriched Uranium Machining. As reported on August 4<sup>th</sup>, BWXT was developing a machine with advanced automation capabilities for deployment in current facilities and the planned Uranium Processing Facility. BWXT had planned to move this development machine to the Enriched Uranium Machining Building by this month; however, design of the system for handling machining chips (for criticality safety) as well as other modifications for radiological control and facility interface have caused this effort to be delayed. The current plan is to complete movement, installation and readiness activities by late-2007. BWXT project personnel noted to the site reps. that an independent design review is being planned.

E. Criticality Safety. The loading in a storage container was found to exceed a criticality safety mass limit in the Enriched Uranium Machining Building this week. BWXT management determined the violation was due to an error by material management personnel in accounting for all material batches placed in the container, which appears to be caused by a lack of a formal tracking mechanism. Also identified was a failure by personnel to immediately isolate the area and make notifications as required.