

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 21, 2007

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** R. Todd Davis/Donald Owen, Oak Ridge Site Representatives  
**SUBJECT:** Activity Report for Week Ending September 21, 2007

A. Special Material Capability Project. Staff members Tontodonato, Andersen, Duncan, Elliot and Von Holle visited Y-12 to review design and safety analysis efforts for a new glovebox that is to be installed in a Y-12 facility. An Independent Project Review has been completed recently in support of Critical Decision-3 (approve start of construction). YSO now anticipates Critical Decision-3 approval by late-October.

B. Uranium Holdup Survey Program. This week, NNSA issued a Preliminary Notice of Violation with a proposed civil penalty to BWXT regarding the failure, discovered in May 2006, to maintain effective criticality safety controls in a vacuum pump filter associated with enriched uranium casting operations. Among several deficiencies, NNSA noted the failure of the Uranium Holdup Survey Program (UHSP) to provide timely and accurate identification of accumulation of fissile material in the filter.

A major corrective action in response to the vacuum pump filter event was instituting the new Inadvertent Accumulation Prevention Program (IAPP, see the 7/28/06 site rep. report). Initial IAPP implementation involves systematic reviews of all fissile material activities relying on the UHSP. These reviews would identify appropriate changes (e.g., use of engineered features, intrusive sampling, periodic equipment change-outs) in lieu of or in addition to the UHSP that address inadvertent fissile material accumulations. Initial IAPP implementation was to be completed by June 2007. As reported on August 31<sup>st</sup>, IAPP implementation has been delayed. The site reps. inquired on the delay. There has been little progress since May 2007 when 11 of 53 planned fissile material activity reviews had been completed (see the 5/11/07 site rep. report). BWXT management attributed the delay to other priorities, lack of sufficient assigned personnel, and discontinuation of monthly, joint YSO/BWXT reviews of progress in responding to the vacuum pump filter event. Actions to resume progress on this effort have yet to be developed.

C. Site-Wide Quality Assurance. Based on Quality Assurance (QA) problems associated with construction of the Highly Enriched Uranium Materials Facility in early-2006 and other site QA issues, BWXT developed a comprehensive site-wide corrective action plan (see the 11/10/06 site rep. report). BWXT has declared implementation of this plan complete. The plan included 95 specific actions in five initiative areas (programmatic, quality control, quality organization, subcontractor/asset acquisition, and engineering/field interface). BWXT performed field validations of these actions to verify adequate implementation and ensure the actions addressed the issues identified in early-2006. In addition, BWXT plans to perform a focused management assessment of the Quality Evaluation Relocation Project (relocation of the octagonal glovebox) in early-2008 to assess specific implementation on a construction project. YSO continues to evaluate these corrective actions and plans to observe BWXT's management assessment.

D. Y-12 Infrastructure Supporting Manufacturing. As reported on August 3<sup>rd</sup>, a team of industry experts tasked to evaluate manufacturing infrastructure and address concerns with funding priorities had presented results of their evaluation to YSO and BWXT management. This week, the team issued their report. This report is largely a forwarding of the detailed presentation documents provided in August.