

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 10, 2006

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** R. Todd Davis/Donald Owen, Oak Ridge Site Representatives  
**SUBJECT:** Activity Report for Week Ending February 10, 2006

A. Highly Enriched Uranium Materials Facility. As reported last week, the construction contractor for the Highly Enriched Uranium Materials Facility (HEUMF) was ordered by BWXT to suspend construction work due to issues with reinforcing steel in concrete placements. This week, a team of BWXT and Bechtel personnel from outside of Y-12 began a review of HEUMF construction including requirements flowdown, quality assurance and construction contractor response to the work suspension. A number of observations and recommendations are in development by the team. Results of this external review are expected to be provided to Y-12 management late next week.

Additional construction quality issues were identified this week regarding surface preparation of concrete and missing reinforcing steel in a certain area. BWXT continues to perform causal evaluations, extent of condition reviews and review the construction contractor's response to the work suspension. BWXT discussed the path forward for resuming work on Friday with YSO management. Based on the construction contractor response and additional issues noted above, BWXT does not intend to allow resumption of concrete placements at this time. Limited rebar installation and other field work not involving concrete placement are expected to be allowed to resume next week.

YSO management has assigned several additional YSO personnel to follow the investigations and the conduct of HEUMF construction for at least the next two months.

B. Construction Quality Assurance. In addition to the HEUMF issues noted above, construction quality issues have been identified for other recent Y-12 projects, including the New Disassembly Glovebox (e.g., sprinkler system seismic clips, glovebox o-rings, loose fasteners), the Oxide Conversion Facility (e.g., instrumentation grounding), and the Purification Facility (e.g., flexible conduit installation). As noted in the December 16<sup>th</sup> site rep. report, these issues indicated the need for a thorough evaluation of BWXT construction quality assurance and acceptance processes. BWXT recently formed a multi-disciplinary review team to evaluate these issues and develop appropriate recommendations to ensure that final installations satisfy design requirements. The team will identify performance expectations (e.g., quality assurance and engineering oversight) for each stage of a construction/maintenance project and determine where identified construction issues should have been prevented. The team will also evaluate implementation of the proposed process on an existing project and review processes used at other sites. The final report from this team is planned by April.