

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 2, 2005

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** R. Todd Davis/Donald Owen, Oak Ridge Site Representatives  
**SUBJECT:** Activity Report for Week Ending December 2, 2005

A. New Disassembly Glovebox. This week, the NNSA Readiness Assessment (RA) team briefed senior management on the results of their review of the new disassembly glovebox. This glovebox provides the capability to disassemble selected weapons components in a controlled, negative pressure atmosphere. The team recommended that the YSO manager approve startup following appropriate correction of pre-start findings. The team identified the following two pre-start findings: installation of sprinkler piping not in accordance with facility drawings (i.e., did not install required retaining clips that provide lateral support during a seismic event); and inadequate weighing procedures and lack of weighing equipment to support operations consistent with the glovebox startup plan. The team also noted several strengths associated with equipment operation, procedure quality, and operator knowledge.

BWXT is performing causal analysis and developing corrective actions for the RA findings. In addition, based on the finding associated with the sprinkler system installation and a similar issue with incorrect installation of glovebox o-rings identified during the contractor RA, BWXT plans to walkdown and verify key facility and safety system features.

B. Activity-Level Work Planning. As reported on October 14th, a NNSA RA finding on maintenance work planning in the new Purification Facility identified that most job hazard analyses (JHAs) had lack of clear identification of safety hazards and controls, including generic identification of hazards and controls (often not applicable to the task). As also noted, this finding was another in a series of issues raised regarding implementation of activity-level hazard analysis at Y-12 including those from the recent DOE Office of Independent Oversight and Performance Assurance (OA) review and going back to the Board's letter of May 21, 2004. Corrective action plans responding to the OA review are to be issued by early January.

In mid-November, the site reps. had inquired on an initiative in the Enriched Uranium Operations building to develop "model" work packages for repetitive maintenance jobs. Some examples provided to the site rep. this week were found to contain a job-specific JHA that included a breakdown of the work activity into basic steps/tasks with identification of specific hazards and controls. Other examples, however, included a broad, generic JHA (e.g., one titled "Repair/Replace Valves, Gaskets, Flanges, Sight Glasses") that provided no breakdown of an activity into steps/tasks and listed dozens of potential hazards and controls. BWXT personnel noted to the site rep. that work planning personnel would select from these numerous potential hazards/controls in the JHA and implement applicable controls into work instructions, etc., but without completing a job-specific JHA. Such an approach does not appear to be consistent with the BWXT maintenance work planning manual, could lead to lack of analysis of potential upset situations, and could inhibit proper consideration of use of engineered controls over administrative or personnel protective equipment controls. The site rep. discussed this observation with YSO and BWXT management.

C. Oxide Conversion Facility. In late-September, BWXT management decided to discontinue initial system testing until issues associated with facility instrumentation could be resolved (see the 9/23/05 site rep. report). B-1 wing scrubber instrumentation and other system instrumentation modifications are now nearing completion. Initial introduction of enriched uranium oxide and other system tests are planned for mid-December with the first oxide conversion test run now planned for mid-January.