

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 10, 2006

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

A. Building 9212 Seismic Deficiencies. As a part of the phased approach for addressing seismic issues associated with Building 9212, YSO and BWXT are proceeding with the risk-based prioritization assessment of potential facility upgrades. Previous facility analyses and the review conducted by seismic experts in November 2005 (see the 11/4/05 site rep. report) will be used as inputs for this evaluation. This week, the site reps. discussed the proposed approach with YSO. In addition to seismic vulnerability, YSO noted that they may include all facility risk factors associated with this aging facility (e.g., fire, ventilation). Currently, NNSA has proposed that Building 9212 be excluded from evaluation in accordance with Recommendation 2004-2, *Active Confinement Systems*. The proposed exclusion for Building 9212 will likely be revisited given the currently expected length of facility operations. Consistent with the Board's November 28, 2005 letter, NNSA plans to brief the Board following completion of the risk-based prioritization.

B. Highly Enriched Uranium Materials Facility. The staff and site reps. discussed with YSO and BWXT their efforts to recover from non-conforming conditions with concrete placements (see site rep. reports since January 13th). BWXT issued a causal analysis report for certain non-conforming conditions that were identified in January and early February. Based on discussions with BWXT personnel, it was not clear that analysis of the cause for more recent non-conforming conditions (e.g., concrete surface preparation at wall joints) is being performed. Consistent with YSO expectations formally transmitted last week, YSO management noted that appropriate causal analysis of non-conforming conditions is necessary prior to resuming concrete placements.

C. Oxide Conversion Facility. As noted last week, an unexpected dispersion of uranium oxide within a glovebox (no external contamination identified) occurred during a material transfer operation. BWXT investigation this week indicates that the material receiver lid was not oriented correctly. Although not specified in operating procedures or operator aids, it appears that the lid must be placed in the proper orientation to ensure an adequate seal. BWXT is developing plans to decontaminate the glovebox and associated airlock. In parallel, BWXT plans to proceed with testing of the modifications that were recently completed for the B-1 wing scrubber. Following confirmation that these modifications corrected problems identified in previous testing, BWXT plans to proceed with operation of the oxide conversion fluid beds.

D. Wet Chemistry - Secondary Extraction. As noted on December 16th, secondary extraction operations were suspended because of an Unreviewed Safety Question due to the potential for concentrated organics in the system. High concentration organics could impact operation of the phase separators that are credited in the safety basis. Last week, BWXT submitted a Justification for Continued Operation (JCO) to YSO for approval. The JCO proposes operation of secondary extraction for 200 hours and requires system sampling and analysis both before and after system operation. The JCO also requires that a watch be posted to confirm proper operation of the phase separator. BWXT plans to evaluate the organic concentration mechanism during these operations to identify a long-term path forward for addressing this issue. An Implementation Validation Review will be conducted to confirm JCO control implementation following YSO approval.