

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 25, 2005

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** R. Todd Davis/Donald Owen, Oak Ridge Site Representatives  
**SUBJECT:** Activity Report for Week Ending February 25, 2005

A. Oxide Conversion Facility. BWXT has submitted closure packages for all NNSA Operational Readiness Review pre-start findings. YSO is in the final stages of approving these closure packages. YSO and BWXT expect that these packages will be closed and the Authorization Agreement will be signed on Monday. Facility operations will proceed in a deliberate-staged manner starting with the introduction of Potassium Hydroxide. Uranium operations are not expected to begin until April. BWXT has assigned a project manager to integrate and drive facility activities through completion of the initial test procedures.

B. Warehouse Transfer Activities. As reported last week, on-site transfer of nuclear material to the Warehouse has been suspended due to receipt and storage of at least 25 containers with material exceeding criticality safety mass limits for the Warehouse (double contingency was maintained). YSO management requested that BWXT review the event, causal factors and corrective actions with YSO prior to resuming on-site transfers. On Friday, BWXT provided an update to YSO on their progress. Among causal factors is lack of formal criticality safety limit tracking (including communication of changes) between generating and receiving facilities, and lack of procedural detail and clear, readily available data to accomplish validations that containers meet criticality safety limits. BWXT intends to complete their investigation and review results with YSO next week.

As a part of the investigation, BWXT also identified several cans that were stored below the PC-2 flood level contrary to requirements in the Authorization Basis (AB) for this particular type of material. These cans were subsequently moved to comply with AB requirements. Similar cans were identified in September 2004 (site rep. weekly 9/24/04) and corrective actions included identification of other cans not in compliance with this requirement. However, it appears that information concerning material form that drives this AB requirement was inadequate to identify the additional cans. BWXT is addressing this issue in conjunction with the criticality issue identified above.

C. Enriched Uranium Operations - Criticality Safety. Last week, a YSO Facility Representative (FR) identified that several containers had been stored with batch cards that did not contain information on mass and other parameters needed to determine compliance with criticality safety requirements for handling and storage. The YSO FR raised the issue with building management and their search subsequently found many other containers with missing information. No critique was called on this issue because the containers were determined to be in compliance with applicable criticality safety requirements. However, YSO continues to evaluate this issue including compliance with requirements of ANSI/ANS-8.19, *Administrative Practices for Nuclear Criticality Safety*.

D. Microwave Casting. As reported on December 23<sup>rd</sup>, YSO and BWXT Readiness Assessments (RAs) were being planned to confirm readiness for a prototype campaign (15 runs) of microwave casting of enriched uranium in the Enriched Uranium Operations building. This week, the line management Performance Self-Assessment was started using copper surrogate for the demonstrations and is to continue through next week. BWXT now projects start of the BWXT RA by mid-March.