

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 17, 2004

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** R. Todd Davis/Donald Owen, Oak Ridge Site Representatives  
**SUBJ:** Activity Report for Week Ending September 17, 2004

A. Spill in Wet Chemistry Operations. On Tuesday, a significant spill of feed solution for the Primary Intermediate Evaporator (PIE) system occurred. Initial BWXT investigation identified that the PIE system was shutdown with a feed tank being re-circulated at minimum flow as intended prior to the spill. Following the spill, the flow controller for the re-circulation loop was found set at a high rate of flow, which forced feed solution to back up through a vent line and overflow the one catch bottle at the vent. An instrument calibration evolution was being performed in a PIE control cabinet that also contains the flow controller for the re-circulation loop. BWXT believes that the flow controller knob may have been inadvertently bumped during the calibration evolution. Investigation continues.

By Thursday, this event had not been externally reported. Following site rep. inquiry on this matter, BWXT management informed the site reps. that the spill will be externally reported.

B. Response to Abnormal Condition - Followup. As reported last week, Y-12 management noted that several hundred strikes from a rod inserted through a sight glass port in the lid of a casting furnace were employed to remove stuck portions of a casting assembly. Issues with lack of formal, specific hazard analysis, work instructions, and Operational Safety Board review of the work planning had been noted by Y-12 management as well as need to critique/investigate the event. At the critique on Monday, the site rep. observed that pertinent facts regarding the hazard analysis and work planning review issues were not identified; instead, the critique focused on the removal operation being authorized based on an assumed urgency to put the casting assembly portions in a "safe, secure, stable" condition. The site rep. discussed this observation with YSO and BWXT management. BWXT management then called for a second critique on Wednesday with BWXT management present. Following this critique, Y-12 management noted to the site rep. that they consider that this situation warranted full use of the established work planning and review processes for this removal activity. A number of corrective/improvement actions are being considered by BWXT on this event.

C. Oxide Conversion Facility. This week, BWXT management conducted their General Manager's Review in preparation for line management declaration of readiness. The review team concluded that the facility was ready for safe introduction of material. The team also noted that the surrogate testing performed could not fully validate system performance and that BWXT management should consider the use of natural or depleted uranium during initial system startup. Start of the BWXT Operational Readiness Review is now planned for September 27<sup>th</sup>.

D. Plant Facility Safety Committee: This week, the Plant Facility Safety Committee conducted their first assessment at Y-12. The Engineering Division Manager decided to establish this committee to provide oversight and periodic review of the facility safety program at Y-12. The committee is modeled after the Plant Criticality Safety Committee that provides a similar function for criticality safety. The assessment reviewed recent facility safety initiatives, the long term safety improvement plan and the Potential Inadequacy in the Safety Analysis process as applied to criticality deficiencies. Several recommendations were provided by the committee to improve the effectiveness of these safety initiatives and programs. This initial assessment was also used to establish the committee membership, develop the charter, and plan future activities. The committee will conduct annual assessments and convene as required to evaluate safety issues.