

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 5, 2004

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** Donald Owen, Oak Ridge Site Representative  
**SUBJ:** Activity Report for Week Ending March 5, 2004

A. Y-12 Conduct of Operations. As reported on February 13<sup>th</sup>, during a Quality Evaluation disassembly operation, a work crew had rigged hand tools into a leveraging device to help establish vacuum in a lifting fixture. The crew had not reported the specific lifting fixture difficulties nor followed a formal change process to authorize use of the rigged device. BWXT investigation of the event continues and Quality Evaluation activities in Building 9204-4 remain suspended. Building 9204-4 efforts to review specific Quality Evaluation processes and workstations resulted in dozens of various items being identified (e.g., cracked glovebox window, lack of a fire extinguisher, need for hand protection during can handling) that warrant corrective action or evaluation. A briefing to YSO on BWXT's investigative effort is now expected during the week of March 8<sup>th</sup>. (I)

B. Y-12 Building 9212 B-1 Wing Fire Protection. As reported on January 9<sup>th</sup>, a Performance Based Analysis (PBA) of B-1 Wing fire protection had resulted in proposed upgrades that included installation of sprinklers on the first floor, a new system shutdown interlock and relocation of certain equipment. A series of external reviews of the PBA have recently been completed resulting in a revision to more clearly address residual risk for certain fire scenarios where the fire starts above the first floor. The site rep. and staff discussed the PBA and path forward with YSO personnel this week. YSO personnel noted that their formal recommendation on B-1 Wing fire protection is expected to be submitted to NNSA Headquarters by March 12<sup>th</sup>. (I)

C. Building 9215 Documented Safety Analysis (DSA). Building 9215 performs machining and various metallurgical operations. YSO approved the Building 9215 DSA this week. YSO noted that the Technical Safety Requirements (TSR) includes two administrative controls to ensure processing of one billet at a time for certain metallurgical operations. YSO has requested, however, that a modified billet basket design that precludes processing of more than one billet at a time be implemented on an expedited basis and incorporated into the TSR as a Design Feature for Safety. In response, BWXT is modifying the billet basket for use prior to the next processing operation. (I)

D. Highly Enriched Uranium Materials Facility (HEUMF). The 100% design for the HEUMF has been submitted by the design contractor. Last week, YSO approved limited site preparation activities (e.g., asphalt removal and site grading), but no major excavation activities pending resolution of a DOE Office of Inspector General issue. Site preparation is expected to start by late April. (II)

E. Building 9212 Oxide Conversion Facility (OCF). BWXT recently submitted their Operational Readiness Review (ORR) Plan-of-Action (POA) containing various ORR information including specific line management prerequisites for starting the ORR. The POA is under review by YSO.

As reported on February 6<sup>th</sup>, the start of "cold operations" was being delayed due to a number of factors, potentially impacting the start of the ORRs. One factor discussed this week between BWXT and YSO is the potential use of surrogate feed material during cold operations. Use of a surrogate would require cleanup to avoid initial product contamination. Prior testing using stainless steel as a surrogate resulted in damage to system equipment. Lack of use of a surrogate would mean additional lack of fidelity to actual operation during cold operations. No decision was made. YSO management noted to the site rep. that the surrogate decision will be made and addressed in YSO's approval of the POA. (II)