DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 7, 2006

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for the Week Ending July 7, 2006

A. Quality Evaluation Relocation. This week, the site reps. met with BWXT and YSO personnel to discuss the status and recent issues related to the relocation of the linear glovebox to the Assembly/Disassembly Building. During startup testing last week, leakage past a vacuum connector resulted in a vacuum transient inside the glovebox that eventually caused failure of one of the gloves. No material was released from the glovebox based on facility surveys. BWXT performed additional testing this week to confirm the failure mode. Corrective actions have been identified to isolate these vacuum lines when not in service to help prevent recurrence.

Startup testing to date indicates that the integrity of the linear box was maintained during the relocation activity. Later this month, BWXT plans to perform integrated testing to confirm that the glovebox and associated systems can meet the specifications for conducting quality evaluation activities. Currently, the BWXT Readiness Assessment is scheduled for late-August with initial quality evaluation inspections in September.

B. Wet Chemistry - Secondary Extraction. Secondary extraction activities have been shutdown since December 2005 because of an Unreviewed Safety Question due to the discovery of high concentration tributyl phosphate (TBP) in the system. Higher concentration TBP prevents the organic phase separators from performing their safety basis function associated with a red-oil accident scenario. BWXT developed a Justification for Continued Operation (JCO) that includes requirements for sampling (both before and after system operation) and visual observations to ensure proper operation of the phase separators. YSO issued a Safety Evaluation Report (SER) that approved the JCO in March (see 3/24/06 site rep. report). This week, BWXT conducted an Implementation Validation Review (IVR) for the controls identified in the JCO and SER. The IVR team identified 6 pre-start findings. BWXT is in the process of resolving these findings and may operate the secondary extraction system as early as next week.

C. Activity-Level Work Planning. BWXT recently issued a site-wide "Lessons Learned" document regarding a troubleshoot and repair activity for a leaking motor-operated pressure control valve on a hydroform press in the Enriched Uranium Machining Building in January. The Lessons Learned was the result of a YSO Facility Representative (FR) questioning the level of work instructions provided for the repair activity that had progressed from an anticipated minor fix to a full motor and valve body disassembly. There were essentially no work instructions provided. In follow-up, the YSO FR also noted a lack of adequate valve design and maintenance information to support the repair. The Lessons Learned concluded that the work package should have provided a description as to the level of intrusive repair allowed, appropriate job steps, and assessment of hazards and controls per the Y-12 Maintenance Planning Guide. In discussion of these issues this week with BWXT and YSO personnel, the site rep. noted two observations on the Y-12 Maintenance Planning Guide regarding troubleshoot and repair activities: (1) the guidance does not explicitly address including hazardous energy isolation as appropriate in troubleshoot and repair work packages; and (2) the guidance does not explicitly address the need to obtain and use adequate design and other information (e.g., drawings, technical manuals, etc.) to support work planning.