

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 24, 2003

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** Tim Hunt, Oak Ridge Site Cognizant Engineer  
**SUBJ:** Activity Report for Week Ending January 24, 2003

Staff member Tim Hunt was on site this week providing site representative coverage.

A. BWXT Y-12 Enriched Uranium Operations (EUO) Wet Chemistry Restart Preparations: The site representative observed the demonstration of the secondary extraction (SX) system as the final activity of the second contractor operational readiness review (CORR II). This pre-start finding from the CORR II in December 2002 was a result of the unavailability of one of the two required operators at that time. A few relatively minor observations were noted by the CORR II team member and this pre-start finding has been closed. The NNSA Y-12 Site Office (YSO) verification team concluded that all prerequisites necessary to support the start of the NNSA ORR have been completed and verified and has recommended that the NNSA ORR begin January 27. NNSA YSO also noted that open issues with the Fire Hazards Analysis and wiped film evaporator tank level indicator will need to be resolved prior to startup of operations. The contractor submitted the recommendation to proceed letter to YSO late today. (2A)

B. BWXT Y-12 Building 9720-5 Readiness Review Preparations: The site representative toured Building 9720-5 (Warehouse) to observe preparations for the next contractor operational readiness review to be performed at Y-12. The startup of off-specification uranium operations will involve the movement, handling, sampling, packaging and off-site shipment of hundreds of high dose rate enriched uranium metal items. Equipment modifications to support this new activity – scheduled to be completed this week – include the addition of lead shielding, lead glass viewing windows and another bag out port to the warehouse glovebox, and installation of a dedicated glovebox exhaust system. The latest schedule shows the contractor ORR beginning in May 2003 and the NNSA ORR in June 2003. (2A)

C. BWXT Y-12 Enriched Uranium Operations (EUO) Modernization: The site representative was briefed on recent progress by BWXT Y-12 in developing its EUO facility strategy. Issues such as facility age and layout, lack of technology infusion, substantial backlog of material, and proximity to Bear Creek Road have compelled the site to look at major upgrades to B9212 or replacing the facility to meet long term mission requirements. A feasibility study for constructing a new stand-alone EUO facility was completed in FY 2000 and showed a replacement cost of about \$1 billion. Currently, a B9212 reuse strategy is being evaluated whereby the facility and processes are modified and upgraded using a phased approach. Preliminary studies show casting operations currently performed relatively inefficiently in E-Wing being moved to updated A and B Wings, new modernized wet chemistry processes moved from non-sprinklered areas of B-1 Wing to C-1 Wing, and C-1 Wing activities combined in C Wing. A considerable factor in the determination of feasibility for reuse is the potential for fortifying the existing structure to meet Performance Category-3 (PC-3) requirements. A decision on the technical and economic feasibility of upgrading and reusing the existing EUO facility to meet PC-3 requirements is expected by April 2003 and will support making a determination on the need for a B-1 Wing sprinkler system. (1C)