

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 22, 2002

TO: J. Kent Fortenberry, Technical Director
FROM: Matt Forsbacka, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending March 22, 2002

A. BWXT Y-12 Building 9201-5, Depleted Uranium Operations: On Monday, the site representative and an NNSA facility representative toured Building 9201-5 (Alpha-5). Of the approximately 500,000 ft² structure, only about 10 - 20% is utilized by Depleted Uranium Operations to operate a vacuum arc remelt furnace and associated support operations. The remainder of the building contains material and equipment that was either abandoned in place or has been shifted from other facilities for indefinite storage. It is apparent that the very large inventory of deserted and abandoned materiel will be a challenge for future deactivation and decommissioning efforts. Of particular concern is the appropriate identification of hazards given the questionable control of previous shutdown activities. At the time parts of the facility were deactivated, the facility was parsed into approximately 80 "capability units" (CUs). A series of deactivation walkdown packages for ~25% of the CUs were completed by 1997, but funding limitations resulted in the termination of the effort. An additional source of information on potential hazards is from interviews of approximately 240 veteran employees conducted under the Y-12 Knowledge Preservation Program during the 1993 to 1997 time frame. Transcripts of these interviews are searchable through a sophisticated database, but a priori knowledge is essential to understanding the content of the search results. It is apparent that information important for efficiently assessing safety of future decommissioning activities is dispersed among several organizations and will require a substantial effort to appropriately characterize hazards associated with decommissioning the facility. However, significant savings could be achieved if safety issues are settled in an efficient manner based on solid process knowledge. Programmatic work in the remaining active portion of Alpha-5 is expected to cease in about five years. (1-C)

B. BWXT Y-12 Building 9206 Pyrophoric Materials Stabilization: First use of the pyrophoric materials stabilization process commenced on Wednesday. The operation was conducted under the cognizance of a BWXT oversight team consisting of a member from Senior Supervisory Watch, a Technical Observer, and a Nuclear Criticality Safety Engineer as well as the Facility Representative from YAO. The operations team smoothly accomplished the transfer of polybottle residual pyrophoric materials and operation of the furnace in the inert glovebox to produce a metal coupon. The apparent competence of the team contributed to the facile approval for unrestricted processing of polybottle residual material. Startup oversight will be again required when the team starts processing materials stored in the legacy chemical reactors. That phase is expected to commence in early April. (3-A)

C. Bechtel/BWXT Corporate Initiatives in Readiness Preparation: Bechtel/BWXT is developing corporate guidance to facilitate readiness preparations at its corporate operations at BWXT Y-12, BWXT Pantex, Bechtel Nevada, and Bechtel BWXT Idaho. Two workshops have been conducted this year and draft Readiness Preparation Guidance is in preparation. This guidance is expected to identify barriers to successful readiness preparation, provide criteria on applying the graded approach, and identify critical elements of a project readiness plan. (2-A)

cc: Board Members