

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 22, 2002

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

A. BWXT Enriched Uranium Operations (EUO): On February 11th, a safe bottle containing liquid wastes from a salvage operation vented up to 3-liters of its contents unexpectedly. BWXT personnel were alerted to this situation by noise and spray from the bottle for a 15 minute interval. The liquid was an aqueous carbonate solution, a byproduct of the Tri-n-octyl phosphine oxide (TOPO) extraction process for phosphoric acid solutions. Laboratory analysis of the vented solution showed a higher than expected concentration of nitric acid, and this may have led to excessive gas production in the solution. In addition, the vented cap from the safe bottle was missing the protective cover over the Gortex® membrane that allows gas to escape but entrains liquids. While the authorization basis takes credit for safe bottles venting, it is not desirable for liquid to be ejected in such an event. Approximately 90% of the salvage operations have been completed, and the TOPO process has been suspended pending the results of an investigation of the event. This event has implications for other legacy solutions which are in need of processing, and emphasizes the need for these solutions to be fully characterized so that a safe disposition path can be assured. (2-A)

B. Maintenance Outage at Y-12 Building 9204-4: On Saturday, a scheduled maintenance outage commenced for Y-12 Building 9204-4, and it was completed on Friday. During this outage, all annual inspections were completed, 1000 filters used in 17 fan systems were changed out, and dozens of preventive and corrective maintenance tasks were performed. Maintenance and repair tasks relating to fire protection lagged behind the rest of the effort. It appears that planning for fire protection related tasks and ensuring the availability of parts should be improved. Overall, the outage went smoothly. A maintenance outage for Y-12 Building 9720-5 is tentatively planned for the week of April 20, 2002. (1-C)

C. Y-12 Building 9206 Operational Readiness Review (ORR): On Friday, YAO and BWXT verified readiness to proceed with the NNSA ORR of the Pyrophoric Material Stabilization Operations and the subsequent deactivation of Building 9206. BWXT provided the rationale for closure of the 11 prestart issues and identified corrective action plans for poststart issues from the BWXT ORR completed last December. The NNSA ORR will commence next Monday. (3-A)

D. Highly Enriched Uranium Material Facility (HEUMF): Critical Decision-1 for the construction of the HEUMF may be delayed pending a decision by the NNSA Administrator regarding the viability of the concept. The project is on hold until this decision is made. (1-C)

E. Y-12 Disassembly: Recovery actions related to the discovery of Joint Test Assembly (JTA) item (site rep weekly 2/8/02) have been hampered by Sandia National Laboratories (SNL) not responding to BWXT's request for technical information in a timely manner. Intervention by NNSA management was necessary to accelerate SNL's response. (2-A)

cc: Board Members