

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 3, 2006

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending November 3, 2006

A. Criticality Safety/Uranium Holdup Survey Program. As discussed last week, Nuclear Criticality Safety (NCS) had declared a deficiency at the Enriched Uranium Metalworking Building for failure to complete uranium holdup surveillances over several months. This week, BWXT performed follow-up quantitative analysis of holdup for surveillance points that exceeded action levels last week. These points were all on a large machine coolant storage tank. The quantitative analysis indicated much higher holdup in this tank than expected and the facility took action to secure the area and contact NCS personnel. This tank remains under NCS control while the tank contents are evaluated and a path forward is determined. BWXT's independent investigation of the failure to complete required surveillances continues.

B. Conduct of Operations. Several recent events at Y-12 underscore a need to consider whether special action is warranted to achieve consistent, disciplined operations in Y-12 nuclear facilities. These events point to a need for improvement in rigorous adherence to procedures, communications, and conservative decision making in proceeding with operations (e.g., see 10/27/06, 10/13/06, 9/1/06, 8/25/06, 8/11/06 site rep. reports). The site reps. discussed this observation with YSO and BWXT management. The staff and site reps. have inquired on any actions being taken or planned to be taken in this area.

C. Warehouse Small Fire - Update. This week, an independent investigation team concluded their review of the small fire that occurred recently in the Warehouse (see 10/6/06 and 10/13/06 site rep. reports). The results of their review were briefed to YSO and BWXT management. The team identified five Judgements of Need including the following: properly defining the scope of work, identifying appropriate controls for handling legacy materials, and involving appropriate subject matter experts in the planning, review and execution of work. BWXT plans to identify corrective actions based on the results of this independent review. The separate investigation of the criticality safety issues identified as a part of this activity continues.

D. Rackable Can Storage Box Loading Campaign. As reported on September 1st, BWXT completed a trial loading of the new Rackable Can Storage Box (RCSB) that is planned for uranium metal and oxide storage in the Highly Enriched Uranium Materials Facility (HEUMF). To support HEUMF loadout and alleviate Warehouse storage space concerns, BWXT plans to start loading RCSBs, with a goal of about 100 RCSBs loaded by September 2007.

E. Warehouse Containers. As reported on October 20th, Warehouse personnel had noted several containers with questionable lid seals. BWXT has developed requirements to ensure that these lid seals are appropriately inspected at the originator (mainly the Enriched Uranium Operations Building). Based on this issue, BWXT is revisiting the technical basis for storage of these containers in RCSBs. The site reps. met with BWXT management this week to discuss the lid seal issue and technical basis evaluation, and inquired whether it would be appropriate to update BWXT's governing document on enriched uranium storage, *Criteria for Safe Storage of Enriched Uranium at Y-12*, to clearly capture these inspection requirements.