

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 16, 2006

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for the Week Ending June 16, 2006

Staff members D. Burnfield and M. Duncan along with outside experts J. Stevenson and D. Volgenau were at Y-12 this week reviewing implementation of Quality Assurance (QA).

A. Vacuum Pump Filter - Criticality Safety. Late last week, BWXT noted that the other two west-side vacuum pump filter housings potentially contain more mass than previously identified, based on recent non-destructive assay analysis. The technical basis to clean out these housings was developed consistent with the previous filter housing clean out activity (see 6/2/06 and 6/9/06 site rep. reports). This activity will likely require a Justification for Continued Operation revision.

B. Highly Enriched Uranium Materials Facility. More than twenty concrete wall sections have been placed since resumption in mid-April (see 4/14/06 site rep. report). This week, BWXT and YSO personnel discussed with the staff and site reps. the site's QA improvement efforts in ensuring structures, systems and components meet design requirements. BWXT noted that QA compensatory actions for concrete placements that include full rebar configuration verifications by BWXT (in addition to construction contractor verifications) will be continued for the near term. BWXT and YSO personnel noted that criteria for reduction of the compensatory actions are to be determined.

C. Design Adequacy Review. As reported on April 28th, YSO identified that BWXT had not performed a required safety system design adequacy review for an existing sprinkler system (associated with a new enriched uranium glovebox) being upgraded in functional classification to safety significant. Subsequently, a non-conformance report was issued and the design adequacy review has been performed. BWXT has developed corrective actions to revise site procedures to provide adequate reference to the design adequacy review process. Training on this process has been added to the qualifications for Facility Safety Engineers and Design Authority Representatives.

D. ORNL Tank W-1A Soil Sampling. In May, Bechtel Jacobs Company (BJC) completed their Readiness Assessment for sampling of the contaminated soil surrounding Tank W-1A. This week, the site rep. observed the initial soil sampling activities.

E. Feedback and Improvement. As reported on March 17th, a small fire in the Special Materials Processing Building occurred in the motor of an air handling unit. Followup by BWXT identified that an increased noise level had been noted in the motor, but a November maintenance request to address the noise had not been acted on prior to the March 16th fire. BWXT's investigation (as documented in the final occurrence report) determined that higher priority work had caused multiple delays in planning and starting the work, all the while the unit continued to be operated. BWXT's main corrective action identified to prevent recurrence (other than addressing this motor) was to issue a site-wide "Lessons Learned" on the fire. This Lessons Learned document states that equipment with such problematic symptoms should be evaluated as to significance by a subject matter expert(s) and/or predictive maintenance analysis and an informed decision made on either securing or continuing to run such equipment. Site rep. review of BWXT's work control manual found that this concept is not incorporated in the manual's protocols on prioritizing work, and an action had not been defined to revise the manual. The site rep. discussed this observation with YSO and BWXT management.