

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 27, 2007

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending July 27, 2007

Mr. Davis was out of the office this week.

A. Uranium Processing Facility. NNSA Headquarters approved Critical Decision-1 (alternative selection and cost range) this week. Preparations for preliminary design are in progress.

B. Building 9212 Documented Safety Analysis. All pre-implementation findings from the BWXT and YSO Implementation Validation Reviews were closed (see last week's site rep. report). BWXT declared the Documented Safety Analysis implemented in Building 9212.

C. Highly Enriched Uranium Materials Facility. The site rep. walked down the Highly Enriched Uranium Materials Facility construction site. Concrete placements continue and installation of safety-class storage racks are to begin in August.

In an extent-of-condition review of prior non-conformances related to structural steel welding, the construction contractor determined that certain welds were missing on certain structural steel joint connections (2 welds out of about 10 welds per joint) in the Mechanical Electrical Building. Several other similar joint connections are to be checked by next week (fire resistant coating needs to be removed and elevated access needs to be established). Investigation is in progress and BWXT is evaluating whether the joint connections can be accepted with the missing welds.

D. Maintenance Program. In YSO's Monthly Assessment Report for June, YSO transmitted deficiencies regarding the lack of coverage and effectiveness of preventative maintenance and the lack of properly controlled post-maintenance testing in Y-12 nuclear facilities. BWXT is required to submit corrective action plans for these deficiencies by mid-August.

E. Criticality Safety. Two events involving material handling/storage are to be externally reported by BWXT. The first involved exceeding the mass limit when loading a chip handling cylinder in the Machining Building. An error in maintaining the running tally of total chip mass over the course of loading several chip batches into the cylinder was determined to be the direct cause, but additional causal evaluation is planned. The second event involved improper identification and accounting of pieces of material that had been size reduced. Two size reduced pieces were assigned the same identification number and (higher) mass of an original item prior to size reduction. While no criticality mass limits were violated, the conduct of the subsequent receiving and storage of one of these pieces with erroneous movement paperwork from the Machining Building to the Enriched Uranium Operations Building is under review.

F. Rolling and Forming. Last week, BWXT started their Readiness Assessment (RA) for the restart of the Rolling and Forming activity. BWXT had previously planned to restart this activity in early-2006 (see the 1/13/06 and 2/2/07 site rep. reports); however, the RA was delayed due to equipment issues and other priorities. Demonstration of the rolling operation equipment and procedure was considered satisfactory, but the gantry crane plate movement demonstration was suspended due to a crane controller problem. The RA is expected to continue into next week.