

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 20, 2002

TO: J. Kent Fortenberry, Technical Director
FROM: Matt Forsbacka, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending September 20, 2002

Staff member T. Hunt was on site this week to augment the Site Representative. The Site Representative was on leave Friday.

A. BWXT Y-12 Enriched Uranium Operations (EUO) Wet Chemistry Restart: The comprehensive procedure review by BWXT Y-12 of Enriched Uranium Wet Chemistry Operations continued this week. More time has been allocated for this review and completion is anticipated in early October. (2-A)

B. BWXT Y-12 EUO Fire Protection: BWXT Y-12 is still working to complete the refurbishment of the C-1 Wing sprinkler system (see last week's report). On Thursday, the operation was further complicated when a sprinkler head burst open as the system was being pressurized. (2-A)

C. BWXT Y-12 EUO E-Wing Operations Stand-down: On Tuesday, the E-Wing Operations Manager issued a standing order to cease fissile material operations due to several criticality safety violations recently identified in multiple storage locations. In response to the various deficiencies (e.g., multiple containers stored in areas with a one can limit and wet material stored in a dry storage vault), operations in E-Wing have been limited until a thorough inspection of criticality safety procedures, postings and storage locations can be completed. Preliminary evaluation indicates potential contributing causes include differing requirements for similar operations, production pressures, and a crowded work environment. Restart of fissile material operations may include oversight control and additional posting conditions. (2-A)

D. Integrated Safety Management (ISM): The annual NNSA ISM verification of the YSO ISM system was completed on Tuesday. The review team rated YSO as above average (the highest rating category). Notable among the review team's observations was a well conceived staffing plan. Staffing shortfalls and associated limitations in meeting the staffing plan, however, were identified as an issue with regard to providing the necessary oversight at the Y-12 site. (1-A)

E. Recommendation 97-1: Oak Ridge National Laboratory Building 3019 personnel are working to modify the basis of the nuclear criticality safety evaluation (NCSE) for tube vault operations to include the presence of small quantities of plutonium commingled with the uranium-233 in some of the storage canisters. No material moves to date have involved amounts of plutonium in excess of 200 ppm, so no authorization basis violations have occurred. An Unreviewed Safety Question Determination (USQD) in preparation to further examine the impact of handling gram-quantity plutonium bearing canisters. The records for the next ten packages slated for inspection do not indicate the presence of plutonium in excess of 200 ppm, and inspection activities are expected to resume in two to three weeks. (3-A)

F. BWXT Y-12 Highly Enriched Uranium Materials Facility (HEUMF): On Thursday, BWXT Y-12 conducted drop tests of two prototype Rackable Can Storage Boxes which will be used in the HEUMF. Full examination of the dropped units will be completed next week. (1-C)