

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 18, 2001

TO: J. Kent Fortenberry, Technical Director
FROM: Paul F. Gubanc and David T. Moyle, Oak Ridge Site Representatives
SUBJ: Activity Report for Week Ending May 18, 2001

Mr. Gubanc attended the annual DOE facility representative conference this week.

A. Y-12 Enriched Uranium Operations (EUO) - Reduction: Initial reduction runs have successfully yielded high quality uranium metal buttons. Pressures and temperatures observed have been well below the predicted values, implying a large safety margin. We remain puzzled that the reactant mixtures appear to be occupying larger volumes than expected and historically observed. As operations continue, we are concerned that as larger batch sizes are attempted, the reactant mixtures may not fit in the crucible. (2-A)

B. Y-12 Disassembly: The BWXT Readiness Assessment (RA) for the new disassembly campaign documented 14 prestart findings 8 post-start findings and 9 observations. Following adequate closure of prestart findings, the NNSA readiness assessment should begin sometime next week. (2-A)

C. Y-12 Full Participation Emergency Exercise: On May 9, outside expert Bob Lewis observed the Y-12 full participation Emergency Management Exercise. Eighteen organizations from the Oak Ridge complex, five state organizations and nine local off-site organizations participated in the exercise. The scenario provided for a chemical explosion in Building 9212 that led to an out of control fire with several injured and contaminated personnel as well as off-site consequences. Overall, the exercise was planned and executed well. Response at the scene of the casualty was satisfactory. It was noted that the site general emergency siren could not be heard clearly in the northwest quadrant outside of Building 9212. Some deficiencies associated with on-site to off-site communications and coordination were identified. Personnel accountability continues to be slow, as it took approximately three hours to account for 18 missing personnel. (1-C)

D. Y-12 HEPA Filters: On Monday, BWXT formally established criteria and an implementation plan for addressing HEPA filter lifetime at Y-12. This plan includes an 18 month period of evaluation and establishment of filter replacement frequencies. All fixed HEPA filter systems will be loaded into the EIS database and tracked for scheduled replacements at specific intervals depending on the conditions the filters are exposed to. This HEPA filter policy was a collaborated effort between engineering, operations and site services organizations. (1-C)

E. ORNL Building 3019: During this week's management self assessment evolutions, a light weight dummy can was inadvertently lifted magnetically while attempting to remove metal filings from the top of the can. The can reached the top of the tube vault before operators noticed it was connected. The can then disengaged from the magnet, fell a few inches, and lodged in the tube. Appropriate recovery actions later removed the can from the storage tube. The inadvertent lift was attributed to weight of the can being used in the demonstration. Previous testing of magnet strength had verified that metal filings could be removed from cans of modest weight without lifting the cans. For the demonstration, however, the magnet was strong enough to lift the lighter can used. Followup should include an investigation of can weights to verify that this incident will not recur. (3-A)

cc: Board Members