

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 12, 2001

TO: J. Kent Fortenberry, Technical Director
FROM: Paul F. Gubanc, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending October 12, 2001

Staff member Helfrich was at Y-12 this week to assist with Site Rep duties. Staff members Robinson and Von Holle visited Y-12 to review chemical safety.

A. ORNL Building 3019: On Wednesday, Building 3019 commenced the U-233 Phase-1 inspection program and retrieved its first package for inspection. The day's evolutions were witnessed by the Site Rep who had the following observations:

1. The operating staff performed with a high level of teamwork and professionalism. The equipment and procedures worked smoothly.
2. At one point, the operating crew reached what they believed to be a procedural impasse. The ORNL Senior Supervisory Watch (SSW) deftly deflected their initial reaction to process an urgent change and compelled them to follow the procedure as written. Upon turning the page, the crew realized that the procedure fully met their needs and the evolution was satisfactorily completed. Increased confidence in the procedures and SSW resulted.
3. Before retrieval began, the storage well was sampled for hydrogen. A peak measurement of 16.7% of the lower flammability limit (LFL) was recorded; approximately 1000 times normal atmospheric levels. Levels this high, while still safe, were unexpected and appear to justify the conservative hydrogen safety controls advocated by the Board staff.
4. Completion of non-destructive examination of this first package should occur next week. Initial indications are that this 15-year old package is in pristine physical condition. (3-A)

B. Y-12 Dismantlement Preparations: BWXT completed its Performance Self-Assessment (PSA) (aka management self-assessment) for a new dismantlement campaign this week. Concerns were identified with equipment readiness, procedures and conduct of operations. BWXT currently plans to start its readiness assessment the middle of next week. It is not certain, however, that issues identified during the PSA will be adequately resolved by then. (2-A)

C. Y-12 Chemical Safety Review: Improvements have been made in the chemical safety management program since the last staff review in October 2000. The staff observed that the corrective actions taken in response to the NaK accident in December 1999 seemed adequate; that the chemical safety management program is formally documented; and that the disposition of chemical safety issues (formerly called vulnerabilities) seems adequate. In addition, the staff was pleased to note that Y-12 has taken a proactive stance on the development of authorization basis documents for chemically hazardous facilities at Y-12, although the staff did not review the quality of these documents. A recent due diligence review conducted by BWXT has identified some new issues related to chemical safety, specifically regarding inactive tanks and the chemical safety program in general. The staff will review BWXT's report and the corrective action plans for these issues, when they become available. (1-C)

cc: Board Members