

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 19, 2002

TO: J. Kent Fortenberry, Technical Director
FROM: Matt Forsbacka, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending April 19, 2002

Staff member M. Helfrich was on site this week to evaluate a course on performing accident analyses at BWXT Y-12 and to discuss nuclear material storage at BWXT Y-12 Enriched Uranium Operations (EUO).

A. BWXT Y-12 Recommendation 2000-2 Phase II Assessments: The Phase II assessment team submitted its draft report for Building 9215, Enriched Uranium Manufacturing, Stack 3 to the contractor for factual accuracy review this week. The assessment, which has been on-going since March 15, has been conducted by a team of both contractor and NNSA personnel that have been assigned to the task on a part-time basis. This has presented certain advantages as the team has been able to cover a broad scope of maintenance and surveillance evolutions, and there has been ample time to perform additional walkdowns of the system with key facility personnel. Observations made so far indicate configuration control issues:

- The manufacturer's drawings show that the filter housing is to be bolted to the floor using anchor clips. During the walkdown of the system, it was found that while the clips were welded to the housing, they were not bolted to the floor. Since this discovery, the safety implications of this nonconformance have been reviewed, and a negative Unreviewed Safety Question determination was submitted to and is under review by NNSA/YAO.
- Facility design drawings show that the port openings in the ducting should be covered with metal plates constructed of the same material as the ducting. During the walkdown, it was observed that several of these openings were covered with duct tape. It is possible that there are metal plates under this duct tape, but that is not certain, and BWXT is working to determine the actual configuration.
- Safebottle connections from duct drains were not in accordance with facility design drawings.

In addition, the team is developing issues regarding the formal definition of vital safety system boundaries and the appropriate safety classification of certain system components. The tenor of the team's findings should provide good opportunities for improvements in conduct of engineering, maintenance, and surveillance for vital safety systems throughout Y-12. (1-C)

B. BWXT Y-12 EUO Wet Chemistry Restart: Last week it was discovered that weld examinations had not been performed for some welds completed on the Intermediate Evaporator and Oxide Dissolver. This occurrence has commonalities with incomplete weld examinations during the construction of the HF system. A BWXT Y-12 independent assessment has been chartered to investigate this situation, and its report is due on May 15, 2002. (2-A)

C. Recommendation 97-1: Oak Ridge National Laboratory personnel recovered the first of two Ammonium Diuranate (ADU) residue cans. X-ray images showed no degradation, however the ADU can was opened in a hot cell as a pre-planned precautionary measure. The carbon steel inner can had severely corroded, and it is suspected that the carbon steel served as a getter for moisture in the ADU. The outer stainless steel can was intact, but it was discolored inside. (1-C)

cc: Board Members