

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 4, 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 4, 2001

Staff members Hunt, Coones, and VonHolle visited Y-12 to review Building 9206 activities.

A. Y-12 Enriched Uranium Operations (EUO) - Reduction: First use operations for the reduction process were suspended this week following an unexpectedly vigorous burning reaction while uncapping the reactor and preparing it for transfer to the knockout glovebox. The job hazard analysis (JHA) and procedure address sparking and minor burning of reactive metals in the uncapping hood, but the 1-2 minutes of sustained burning observed was not expected. Furthermore, the JHA does not consider the potential for the same reaction in the knockout glovebox, which has combustible hydraulic fluid lines. EUO personnel reacted well to the unexpected condition, stopping the procedure and discussing an appropriate path forward. Some changes suggested for continued operations include the use of fire resistant gloves in the uncapping hood and fire resistant wraps to protect hydraulic lines in the knockout glovebox from any burning fragments generated.

In general, the operators performed very well during this week's operations. Vessel integrity was not an issue during this first run as the peak pressure observed (59 psia) was well below the 400psia limit. EUO hopes to continue button knockout and pickling operations early next week. (2-A)

B. Y-12 Disassembly: The BWXT Readiness Assessment (RA) for the new disassembly campaign continued to incur delays (most related to known site-wide issues), and was suspended on May 4:

1. A day was lost when some campaign-specific tooling, which had been sent off for modification and retesting, arrived back at the facility with a new style of inspection sticker. The facility did not want to use the tools until the new sticker was determined to be valid. A new sticker was used because the inspection group is now adhering to their own labeling procedure which recognizes only this "new sticker" and not those historically used throughout Y-12.
2. An evolution was interrupted when the oxygen level in the inert lathe could not be maintained. Based on past reviews (e.g., staff maintenance review in January 2001) and recent discussions, most equipment in this facility is maintained primarily through corrective maintenance.
3. During the above oxygen problem, the calibration of the oxygen sensor and alarm were called into question. Investigation revealed that the wrong calibration requirements were cited in the maintenance database and that the "correct" set for that instrument are not adequate to support the disassembly procedure as written. Another contributor is that field calibrations across the site are not proceduralized and are thus performed to widely differing standards. (In response to the ISM review, BWXT had already established a team to deal with site calibration issues.)

While frustrating and indicative of inadequate readiness, the good news is that these issues are being revealed because of YAO and BWXT management interest and commitment to improving the formality (and thus reliability and control) of operations and maintenance. (2-A)

C. Y-12 Organizational Changes: This week, BWXT has been in control of Y-12 for six months and has announced several realignments and reassignments in its operations organization. The site reps view the changes as largely positive and will brief the Board on the details next week. (1-B)

cc: Board Members