

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 24, 2001

TO: J. Kent Fortenberry, Technical Director
FROM: Paul F. Gubanc, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending August 24, 2001

Staff member Forsbacka was at Y-12 this week to assist with Site Rep duties.

A. Y-12 Disassembly Preparations: Forsbacka followed evolutions regarding BWXT's preparations to ready the operators, tooling, and facility for the new disassembly campaign. On Monday, NNSA Y-12 Area Office (YAO) and BWXT met to discuss expectations for assessing readiness. BWXT emphasized that they are focusing on getting ready to operate (as opposed to getting ready for assessment) and thus they will intrinsically meet YAO's readiness requirements. BWXT is also using startup-experienced personnel from other BWXT sites in the DOE complex. BWXT's approach was to conduct a table top exercise to develop a list of necessary procedures and equipment to conduct the campaign. Actions to prepare the campaign were then laid out in a Gantt chart. Lacking was a formal means to verify the adequacy of the steps taken, however, BWXT personnel noted that each programmatic action was well vetted via verbal communication. Because there is significant dependence on support organizations, this approach is vulnerable to unanticipated interruptions/delays if requirements levied on those support organizations are not clearly defined and acted upon. YAO and BWXT agreed on the following:

- BWXT will clarify the scope of the campaign.
- BWXT will demonstrate that all aspects of equipment and tooling are functional, calibrated, and operators are properly trained to use the equipment and tooling.
- BWXT will determine the appropriate level of mockup training for each of major element of the campaign. For steps in the operation that will not be demonstrated with a mockup, a rationale for why this is adequate will be provided.

Verification and validation of the process is now planned to occur this weekend. (2-A)

B. Y-12 Enriched Uranium Operations: When reduction was last fired on July 2, localized vessel temperatures (e.g., along the vessel bottom weld) were once again discovered to have exceeded the stress calculation assumptions. Engineering has just recently completed its new analysis but is not yet willing to share it. Discussions suggest that they cannot meet the current safety factors without changing other assumptions (e.g., pressure, vessel time at temperature). (2-A)

C. Waste Management at Y-12: Wednesday, YAO and Gubanc visited the RCRA storage facility and uranium storage vaults at Y-12 which are managed by Bechtel Jacobs (BJC). The BJC subcontractor explained that preparations were underway to confirm readiness to stabilize shock-sensitive compounds currently in storage. Included in the scope of this work are plans to stabilize NaK liquid alloy stored under mineral oil. The NaK must be treated locally since the level of peroxide in the NaK exceeds the disposal vendor's limit. Surprisingly, the BJC ES&H and subcontractor line management reps on the tour were not acutely aware of the safety issues and lessons-learned from the 1999 Y-12 NaK accident. YAO is working to remedy this. (1-C)

cc: Board Members