

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 16, 2005

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending December 16, 2005

A. Unreviewed Safety Question. This week, BWXT declared an Unreviewed Safety Question at the Enriched Uranium Operations building based on potential inoperability of the organic phase separators associated with secondary extraction. The safety basis requires that solutions be processed through phase separators prior to transfer to any of the facility evaporators to help prevent a red-oil reaction scenario. This week, BWXT noted that the solvent used in this process (tributyl phosphate) appears to be concentrating in the system which can prevent proper operation of the phase separators. The secondary extraction system has been isolated and facility personnel are investigating whether organic material was transferred to other wet chemistry systems. BWXT also continues to investigate the concentration mechanism and a path forward for secondary extraction operations.

B. New Disassembly Glovebox. BWXT has now completed corrective actions for all Readiness Assessment (RA) pre-start findings. This week, NNSA granted startup authorization for the new disassembly glovebox and the first disassembly operation was started on Friday.

C. Construction Quality Assurance. BWXT recently completed a walkdown of key facility and safety system features for the disassembly glovebox based on RA findings (see 12/2/05 site rep. report). During this walkdown, BWXT identified missing/loose hardware (e.g., nuts, washers), incorrectly installed components and field installations inconsistent with facility drawings. Similar construction fabrication issues were identified at the Purification Facility and the Oxide Conversion Facility. These issues indicate the need for a thorough evaluation of construction quality assurance and acceptance processes and associated implementation. The site reps. discussed this observation with YSO and BWXT management.

D. Quality Evaluation Relocation. Earlier this year, BWXT successfully completed the critical lift and relocation of the first quality evaluation glovebox (i.e., the linear glovebox) to the Assembly/Disassembly building. Facility modifications and procedure development to support glovebox operations continue. BWXT has proposed that separate contractor and NNSA RAs will be conducted to confirm readiness for this activity. The current BWXT schedule indicates startup of the linear glovebox in the Assembly/Disassembly building in August 2006.

E. Rolling and Forming Operation. As reported last week, YSO personnel had requested that BWXT address the justification for not performing a readiness review for the planned restart of the enriched uranium rolling and forming operation that has not been conducted in more than one year. The current BWXT Startup Notification Report does not address this restart. On Friday, YSO management stated that a readiness review is not required based on limited operation of various pieces of equipment during the past year (though no integrated runs of the entire process nor any equipment operation with surrogate material had been performed). Following site rep. inquiry with YSO management on specific justifications in meeting DOE directives and site-wide procedures, YSO personnel informed the site rep. that this decision is being revisited.