

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 28, 2003

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: W. White, Pantex Site Representative
SUBJECT: Pantex Plant Activity Report for Week Ending March 28, 2003

DNFSB Activity Summary: W. White was on leave Tuesday and on site for the remainder of the week.

W88 Authorization Basis: BWXT discovered this week that the W88 program had not implemented an in-service inspection required in the *W88 Assembly and Disassembly and Inspection Operations Activity Based Controls Document*. On February 28, 2003, the document was amended to include a protective floor covering that passed the skid test as a design feature. An in-service inspection was included to perform a visual inspection of the floor coverings each shift when the W88 is in certain configurations. Although the floor covering is in place, the in-service inspection was not implemented. As an immediate action, BWXT suspended operations in the affected facility until the inspection could be implemented. BWXT is conducting a review to determine whether other controls for the W88 program might have been made effective without being implemented fully.

The W88 hazard analysis was amended in 2001 to address multi-unit processing. Multi-unit processing never received approval from nuclear explosive safety reviews, however, so most changes associated with multi-unit processing for the W88 program were not implemented. Apparently as a good business practice, BWXT decided to implement certain control changes that provide enhanced safety assurance for single-unit processing as well as multi-unit processing. However, it does not appear that program management and authorization basis personnel took necessary steps (as required in BWXT Standard 3071, *Development, Implementation and Control of Authorization Basis Documents*) to ensure implementation of the control changes prior to making them effective. [II.A]

Recommendation 99-1: The Stage IV Qualification Engineering Release (QER) was approved this week for the AL-R8 2040 sealed-insert container. The QER contained a single recommendation regarding thermal properties of the new container. The QER noted the performance of the sealed-insert container was better than that of the existing AL-R8 container, but not quite as good as the AL-R8 2030 sealed-insert container. The QER recommended that an evaluation be conducted to determine if the AL-R8 2040 sealed-insert design could be enhanced to achieve thermal dissipation parity with the AL-R8 2030 sealed-insert design. The QER recommended that this evaluation be conducted before procurement of the new container begins.

The new AL-R8 2040 sealed-insert container will accommodate certain families of pits that are not compatible with the AL-R8 2030 sealed-insert container. These sealed-insert containers provide a significantly enhanced storage environment for pits at the Pantex Plant. Repackaging of the existing inventory of pits at Pantex into these containers is addressed in Board Recommendation 99-1, *Safe Storage of Fissionable Material Called "Pits."*

In May 2002, the Board sent a letter to NNSA emphasizing that certain points should be considered prior to proposing closure of Recommendation 99-1. Among these points was the completion of the Stage IV QER for the AL-R8 2040 sealed-insert container. The Board also stressed the need to ensure that the repackaging program was funded to completion. In particular, the Board proposed adequate funding in the fiscal year 2003 appropriation and in the fiscal year 2004 budget request as the minimum acceptable indicators of success. To date, NNSA has not identified adequate funding for container procurement in FY03 or FY04 to support a continuing repackaging rate in line with the NNSA commitment to the Board. [II.A]