

# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 6, 2002

**MEMORANDUM FOR:** J. K. Fortenberry, Technical Director  
**FROM:** W. White, Pantex Site Representative  
**SUBJECT:** Pantex Plant Activity Report for Week Ending September 6, 2002

**DNFSB Activity Summary:** The Pantex Plant was closed on Monday for the Labor Day Holiday. W. White was on site for the remainder of the week. The Board's LANL Site Representative, C. Keilers, was on site Thursday and Friday to attend a meeting of the Standing Management Team, to observe nuclear explosive operations, and to attend the milestone 1 briefing for the B83 seamless safety (SS-21) project.

**B83 Milestone 1:** On Thursday, the B83 project team briefed the Standing Management Team on the conceptual design for the B83 SS-21 process. Unlike past SS-21 projects, however, the B83 team proposed only a limited number of tooling and process modifications. There were 13 new tools proposed and 22 tooling modifications. Many of the new tools or tooling modifications were minor and were prompted more by efficiency drivers than safety. Worker safety was a driver for a few new tools and tooling modifications. One tooling change that did have a significant safety impact was the use of the enhanced transportation cart, a change already planned outside the SS-21 project.

The justification for the absence of a significant process overhaul was the presumed weapon response for the program. Based on information already received from the design agency, the B83 project team assumed that drops or mechanical insults, which drove many of the changes in the SS-21 process for conventional high explosive systems, would not result in a violent explosive reaction for the insensitive high explosives in the B83.

Despite the limited number of changes proposed for the B83, the SS-21 project is still scheduled for two years. Most of the effort associated with the project will be in the development and implementation of a documented safety analysis for the program. Although the Standing Management Team approved the milestone, they encouraged the B83 project team to pursue schedule acceleration where possible. [II.A]

**Fire Protection Basis for Interim Operation (FBIO):** Last week, BWXT conducted its readiness assessment for the final stage of the implementation of the FBIO. This assessment verified the implementation of FBIO controls for transportation activities in the ramps. All controls in the FBIO have now been implemented and verified by BWXT. Following closure of all pre-start findings and declaration of readiness by the BWXT General Manager, all technical safety requirements derived from the FBIO will be applicable to nuclear operations at the Pantex Plant. The remaining NNSA readiness assessments to verify the implementation of controls have not been scheduled. [II.A]

**Laser Gas Sampling:** On Wednesday, the site representative walked down the laser gas sampling facility with BWXT and OASO personnel. A laser in the facility is used to drill a small hole in pit tubes to facilitate gas sampling. Following extraction of the gas sample, the laser then welds the hole closed. The facility also contains a radiography machine to examine the pit tube weld following the gas sampling operation.

This category 2 nuclear facility has no current documented safety analysis. In a recent startup notification report, BWXT proposed restarting the facility, which has been shut down for over a year, after conducting a contractor readiness assessment. No NNSA assessment was requested. OASO approved this startup request. BWXT and OASO are currently reconsidering this path forward and may choose to start up the facility under the *Nuclear Material Safety Analysis Report*, which is being reviewed for approval by OASO. [II.A]