DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 11, 2003

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: W. White, Pantex Site Representative
SUBJECT: Pantex Plant Activity Report for Week Ending July 11, 2003

DNFSB Activity Summary: W. White was on site all week. C. Keilers was on site Friday to observe a Standing Management Team (SMT) Meeting.

12-44 Blast Door Interlocks: While performing a pre-operational check of the safety-class blast door interlock system for the equipment doors of Building12-44, Cell 6, production technicians were able to open the blast pins securing both of the equipment doors. As a function of the system design, the interlocks release the mechanism securing the blast pins for one door a couple of seconds before securing the blast pins for the other door. Although, other locking mechanisms prevent both doors from actually opening at the same time, the doors may not perform their intended safety-class function without the blast pins in place.

The failure of the pre-operational check occurred on June 27, 2003. At the time, BWXT entered the appropriate limiting condition of operation (LCO) in the *Technical Safety Requirements for Pantex Facilities* (TSRs) and implemented an administrative control to ensure at least one door remained closed at all times with the blast pins in place. A few hours after entering this LCO, however, BWXT facility personnel concluded the blast door interlock system functioned as designed and that personnel would not normally attempt to release the blast pins for both doors within the brief time window this would be possible.

After further evaluation, however, BWXT determined that the ability, even over a brief time window, to open both sets of blast pins simultaneously violated the design requirement of the interlock system. LCO 3.1.1 in the TSRs states "the Cell Equipment Blast Door Interlock System shall be OPERABLE assuring at least one Equipment Blast Door remains closed with the associated Blast Door Closure Pins engaged . . ." On Monday, BWXT re-entered the LCO and initiated efforts to correct the design deficiency. The LCO requires that the interlock system be made operable or a recovery plan be submitted to NNSA within 15 days. NNSA has chosen to give BWXT 15 days from the second time the LCO was entered to complete this recovery plan.

BWXT indicated that a design deficiency may also exist in the blast door interlock system for the 12-84 bays. This system is identified as a safety system in the new safety analysis report for nuclear explosive bays, but the required controls from that report have not yet been implemented and made effective. The currently required control is an administrative one for these bays. [II.A]

W87 Seamless Safety (SS-21) Project: The W87 project team made its Milestone 1 presentation to the SMT on Friday. The project team proposed an SS-21 option that included no process safety enhancements beyond those already planned for implementation of enhanced transportation carts. The project team also presented two other options for SMT consideration that included enhancements for worker safety. In addition to these options, the SMT discussed whether the W87 program could implement the proposed safety enhancements outside the scope of SS-21 and on an individual basis as priority and resources allow. This approach might allow earlier implementation of the worker safety enhancements if appropriate priority is given to the changes. Absent the priority driver inherent in an SS-21 project, however, it is possible the additional safety enhancements might never be implemented. The SS-21 project as currently proposed would spend $2.265 million over the next eighteen months to develop the documented safety analysis but make no substantial process changes outside those already planned for implementation of enhanced transportation carts. [II.A]