

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 16, 2002

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: W. White, Pantex Site Representative
SUBJECT: Pantex Plant Activity Report for Week Ending August 16, 2002

DNFSB Activity Summary: W. White was on site all week. T. Dwyer was on site Thursday and Friday to attend a meeting of NNSA, BWXT and national laboratory personnel on the subjects of accelerated tooling, lab support of Pantex operations, and status of procedural adherence corrective actions being taken by BWXT.

Pit Thermal Monitoring Systems: On Tuesday, BWXT began its Phase II assessment of the pit thermal monitoring systems at the Pantex Plant. These systems are used to monitor the temperature of pit storage locations at the site to validate that safety and quality limits associated with pit temperatures are not being exceeded. BWXT is conducting this assessment as part of the plant's implementation of Board Recommendation 2000-2, *Configuration Management, Vital Safety Systems*.

The assessment is expected to take several weeks. A team of local BWXT and OASO personnel are participating in the assessment. Among the more difficult aspects of the assessment are defining system boundaries, determining appropriate design and installation criteria, and identifying the extent of the safety functions (monitoring, alarm, remote notification, etc.). [II.A]

Building 12-121 Readiness Assessment: This week, OASO released its report from the readiness assessment of high explosive machining operations in Building 12-121. Machining operations in this facility were suspended following an incident in June 2002. Following the incident, BWXT took steps to improve conduct of operations, control of equipment, and the management systems in place for high explosive machining. A contractor readiness assessment was conducted in July 2002. Following the contractor assessment, OASO remained concerned about several issues that contributed to the initial incident. Among these were a lack of understanding by BWXT personnel of the interlock system used with machining operations and the existence of unapproved software tapes for machining that remained in the facility. Based on these and other considerations, OASO decided to conduct its own readiness assessment prior to allowing the resumption of machining operations.

The OASO readiness assessment concluded operations were safe to resume in Building 12-121. The assessment did identify one pre-start finding, three post-start findings, and two observations. The pre-start finding addressed the absence of procedural controls for a machine key used to skip through lines of program code. The post-start findings addressed the need to update the process hazards analysis, the lack of an effective assessment program for operations in Building 12-121, and the failure of process procedures to identify all required tooling for performing operations. One of the observations addressed management's failure to utilize fully the experience and knowledge of facility representatives, first line supervisors, and technicians.

In general, both the BWXT and OASO responses to the incident appeared to give adequate consideration to the seriousness of the initial occurrence. Both BWXT and OASO recognized the need to change fundamental performance expectations for high explosive processing operations at the Pantex Plant. The long-term effectiveness of the actions taken to date remains to be seen. [II.A]