

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 27, 2002

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: W. White, Pantex Site Representative
SUBJECT: Pantex Plant Activity Report for Week Ending September 27, 2002

DNFSB Activity Summary: W. White was on site all week.

Phase II Assessment of the Pit Thermal Monitoring Systems: BWXT completed its phase II assessment of pit thermal monitoring systems this week. This six-week assessment was a deliverable to the Board under Recommendation 2000-2, *Configuration Management, Vital Safety Systems*. The primary goal of the phase II assessments is to evaluate the current operational readiness of systems with respect to the safety functions for which they are credited.

However, this proved difficult for the thermal monitoring systems since the safety functions are not clearly defined, and the maintenance, calibration and reliability data are not documented sufficiently to support an accurate assessment. The assessment, in large part, served to identify the lack of clearly defined functional requirements for the pit thermal monitoring systems and the absence of those management systems and programs necessary to ensure continued operational readiness. The assessment identified that configuration management, quality assurance, maintenance, surveillance, and calibration programs, among others, were not in place or sufficiently formalized for the systems.

The assessment did find several strengths with the pit thermal monitoring systems. The various monitoring systems, which have been developed over the past several years, in part, as ongoing research and development projects, have had the support of expertise not only from BWXT, but also from the pit design agencies. The systems appear capable of monitoring pit and facility temperatures where used and often incorporate significant redundancy.

This assessment is the only phase II assessment of a vital safety system to be completed at the Pantex Plant under Recommendation 2000-2. BWXT will develop a corrective action plan for the assessment. BWXT is also in the process of developing a plan to institutionalize the phase II assessment process. This plan is scheduled for completion next week. [II.A]

Implementation of Enhanced Transportation Carts: BWXT continues to make limited progress in implementing enhanced transportation carts for various weapon programs at the Pantex Plant. The plan to implement these transportation carts is a commitment to the Board under Recommendation 98-2, *Safety Management at the Pantex Plant*. The carts are currently in place for the W76 and W78 programs. Readiness assessments are ongoing to implement the carts for the B61 and W88 programs. Implementation of the carts for the W80 and W87 programs is awaiting final resolution of concerns raised by the design agencies for those programs. The W62 program will implement the carts as part of its seamless safety project, currently underway. The B83 program is scheduled to implement the carts prior to the end of this calendar year. In a project plan attached to an August 23, 2001, letter, NNSA identified to the Board a schedule for implementing the carts on a staggered basis, with all programs except the B83 having the carts implemented by August 2002 or prior to the next cycle of operations.

The target date identified for implementation of the enhanced transportation carts on the W84 program was 'prior to the next cycle (FY03).' However, the effort to restart W84 disassembly and inspection operations in early FY03 currently does not include implementation of the carts. Implementation of the carts on the W84 program is now scheduled for the following cycle. Given that the carts are available, it is not clear why design of interface tooling and implementation of the carts was not included in the W84 restart effort. [II.A]