

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 13, 2002

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: W. White, Pantex Site Representative
SUBJECT: Pantex Plant Activity Report for Week Ending December 13, 2002

DNFSB Activity Summary: W. White was onsite all week. R. Rauch and R. West were on site all week to observe the NNSA readiness assessment for implementation of controls in the *Fire Protection Basis for Interim Operation*.

Fire Protection Basis for Interim Operation (FBIO): On Monday, NNSA began its Readiness Assessment (RA) for implementation of controls from the FBIO for individual weapons programs and special facilities. The RA initiated slowly because of difficulty obtaining documents and the absence of team members due to illness and prior commitments. Limited observations of operations identified problems with the implementation of controls, conduct of operations and correction of findings from the contractor RA. The delays experienced and problems noted place the planned completion of the RA next Friday at risk. [II.A]

W84 Surveillance Activity: On Monday, BWXT submitted a letter to OASO concerning start up of W84 surveillance activity, and identifying the BWXT position with respect to conducting potential surveillance activities. An attachment to the letter identifies the available information supporting the safety of W84 operations and agrees to start up W84 operations, if requested to do so by NNSA, without conducting any hazard analysis and without performing a nuclear explosive safety study. The Pantex Plant last performed W84 surveillance operations in May 1998. The following are cited by BWXT as supporting information for the safety of W84 operations:

- *A nuclear explosive safety study was conducted in September 1992, during which a panel of qualified individuals reviewed the operations.* Of note, this study was conducted prior to the improvements made in the nuclear explosive safety study process that followed a Board Recommendation (93-1) and reporting requirement in 1993. The study was performed under the assumption that it would expire in 5 years, and the basis for assumptions made during the study were not captured in a manner conducive to long-term change control for the operation. A letter extending the expiration of the study identified the completion of a hazard analysis as an explicit condition of the extension. No analysis has been done.
- *There are no mechanical insults at Pantex that would result in a detonation of the Insensitive High Explosive.* The laboratory letter cited represented a joint laboratory conclusion regarding mechanical initiation of a detonation. The same letter, however, identified mechanical release of material, significant worker safety issues, and burning dispersal of plutonium from thermal insults as hazard scenarios that could not be screened. The laboratory response also explicitly declined to address multiple abnormal environments.

BWXT also discussed ongoing site-wide safety initiatives, such as the fire protection and lightning bases for interim operation, that would provide controls for W84 operations and would address some, but not all, of the apparent hazards for the W84 program. A final package will be forwarded to NNSA headquarters for a decision on whether to proceed with W84 operations in the absence of a documented safety analysis and current nuclear explosive safety study. [II.A]