

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 5, 2003

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: W. White, Pantex Site Representative
SUBJECT: Pantex Plant Activity Report for Week Ending September 5, 2003

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.

W62 Seamless Safety Tooling: BWXT resumed operations on Thursday with modified tooling for the W62 seamless safety process. The tooling modifications were necessary when the bore down portion of the new seamless safety process left technicians unable to separate the physics package from the reentry shell. The modification allowed the new process to mimic more closely the old bore down process.

As of Friday afternoon, however, use of the new tooling was not yet successful. In attempting to use the tooling, technicians encountered anomalies with both the tooling and the unit being worked. A loose tool required tightening, a latch on the tool had to be held closed on occasion by technicians, and an apparent stress fracture was discovered in a component of the tool following its use. During the use of the new tool, the physics package unexpectedly settled a small distance into the reentry shell. Following this unexpected movement of the physics package, production technicians attempted to separate the physics package from the reentry shell but were not successful.

The process engineer, tooling engineer, production section manager, and design agency representative were present to observe most of the initial effort to use the modified tooling. BWXT personnel will revise the procedure to allow part of the bore down process to be repeated and the extraction process to be attempted again. [II.A]

Columbia Accident Investigation Board Report: The PXSO manager this week requested that his senior staff and BWXT evaluate potential lessons learned from the recent report of the Columbia Accident Investigation Board. BWXT will schedule a working session involving BWXT and PXSO senior managers next month to discuss the report and the potential implications of the findings in the report for Pantex Plant operations. Among the items to be discussed include the waiver of required safety factors, the normalization of deviance, the structure and performance of the nuclear explosive safety program, the use of analytical tools outside their original design parameters, the contributions of internal and external drivers towards schedule pressure associated with seamless safety work, etc. [I.C]

Software Quality Assurance: DNFSB staff held a telephone conference this week with BWXT and the PXSO to discuss progress made in addressing the Board's letter of March 25, 2003, on software quality assurance at the Pantex Plant. A number of significant actions have been completed since March, including the revision of the Plant standard for software quality assurance, completion of a benchmark against industry standards, and completion of an evaluation of Pantex Plant software quality assurance practices by outside experts.

BWXT also discussed the treatment of safety-related software in site safety basis documents. Control descriptions for safety-related systems or administrative controls have been revised to identify clearly where those systems or administrative controls rely on software for execution or implementation. The revised Pantex Plant standard for software quality assurance identifies the specific requirements for software identified in this manner. [II.A]