

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 9, 2002

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: W. White, Pantex Site Representative
SUBJECT: Pantex Plant Activity Report for Week Ending August 9, 2002

DNFSB Activity Summary: W. White was on site all week. D. Burnfield, J. DeLoach, and D. Volgenau were on site Tuesday and Wednesday to review the implementation of Recommendation 2000-2, *Configuration Management, Vital Safety Systems*.

Recommendation 2000-2: DNFSB staff were on site this week to review the implementation of Recommendation 2000-2 at the Pantex Plant. The focus of the review was on the implementation of the federal subject matter expert (SME) program, the contractor's (BWXT) system engineering program, and the Phase II assessments of vital safety systems.

For the federal program, the staff found the SME's (or system engineers at OASO) are understaffed; both the Federal Technical Capabilities Panel and an earlier OASO staffing plan indicated that additional SMEs, above those currently identified, are required. The staff also found that the OASO program lacks sufficient, formal definition of roles and responsibilities.

For the BWXT program, the staff noted the functions of contractor system engineers are performed by at least four different organizations: Systems Engineering, Applied Technologies, Fire Protection Engineering, and, to some extent, Weapon Process Engineering. The training and qualification program for these engineers is not formalized nor consistent and did not appear to meet the intent of the DOE Implementation Plan for Recommendation 2000-2. The qualification program in place for weapon process engineers appeared reasonable, but the program lacked definition for the qualification of an engineer on a specific weapon program. A letter from the Secretary of Energy in February 2001 directed DOE sites to establish initial qualification and requalification requirements for system engineers and to implement those requirements by September 2001. No such action has been completed at Pantex. [I.C.3]

Combustible Material Controls: On Monday, the site representative met with BWXT and OASO personnel to discuss recent DNFSB observations of W87 and W79 operations. DNFSB staff observed violations of the combustible material control procedure (P7-0040) for the W87 program. The staff also observed noncompliance with the combustible loading disposition document for the W79 program and a lack of knowledge by W79 manufacturing personnel with respect to stand-off distances for unoccupied facilities. The observations mirrored similar observations during contractor readiness assessments conducted earlier this year to verify the implementation of combustible material controls for these programs. Actions taken to address the findings and observations of these readiness assessments do not appear to have been effective.

BWXT indicated the following actions, among others, were taken to improve conduct of operations following the staff visit:

- Provided feedback to manufacturing personnel on performance expectations
- Conducted observations to identify and correct similar concerns for other programs
- Increased field observations of combustible material control adherence by production section managers and nuclear safety officers
- Developed combustible control refresher training for manufacturing personnel

It is not yet clear whether these additional actions will be effective. The NNSA readiness assessment to verify implementation of the combustible material controls for specific weapon programs will be conducted later this year. [II.A]