

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 12, 2002

MEMORANDUM FOR: J. K. Fortenberry, Technical Director

FROM: W. White, Pantex Site Representative

SUBJECT: Pantex Plant Activity Report for Week Ending July 12, 2002

DNFSB Activity Summary: Board Site Representative Harry Waugh passed away on Saturday, July 6. Mr. Waugh devoted over 50 years of his engineering career to the United States' defense nuclear complex, first at Los Alamos National Laboratory and then as one of the Board's Pantex Site Representatives. His expert advice and wise counsel will be missed.

Board Chairman John Conway and Member John Mansfield were at Pantex on Tuesday to discuss accelerating enhanced tooling for the W88 and W78 programs and to discuss national laboratory support for Pantex operations. Board staff member A. Matteucci was on site Monday through Friday to assist the Board's Site Representative. Board staff members K. Fortenberry, J. McConnell, T. Dwyer, C. Keilers and J. DeLoach were on site Tuesday to support the Board.

Violation of W78 Technical Safety Requirements: On Tuesday, BWXT discovered that certain modifications to vacuum chamber tooling had not been performed as required for the W78 program. The tooling in question was a specific design feature identified in the technical safety requirements for the W78 program during vacuum chamber operations. The design requirements in the authorization basis were related to stability criteria for seismic events and a falling person. The original tooling did not meet the design requirements, but a modification to the tooling was developed. This modification allowed the connection of two separate tools, and, upon analysis, the modified configuration was determined to meet the required stability criteria. However, the modification was never implemented. The W78 program has processed nine units through the vacuum chamber without the required tooling modifications.

The tooling drawings had been changed to reflect authorization basis design requirements, and a work order had been processed to modify the tooling. However, the tooling was never modified. In addition, W78 procedures did not capture the requirement to use the modified tooling. The loss of configuration control for the tool and the inadequate flow-down from the authorization basis to the tooling was missed by the contractor technical assist, the contractor readiness assessment and the NNSA readiness assessment.

As an immediate corrective action, BWXT suspended W78 vacuum chamber operations until the tooling can be modified and the procedures changed. Additional corrective actions initiated include evaluating the list of outstanding tooling modifications to determine whether any are necessary to meet authorization basis requirements and evaluating the adequacy of flowdown for other W78 controls in the authorization basis. BWXT is also considering a modification to its technical safety requirements to add an in-service inspection to verify the installation of features added to the tooling prior to use. In addition, BWXT will issue a startup instruction/procedure that was in development prior to the occurrence. This procedure, hopefully, will formalize tracking of process and tooling changes required as a prerequisite for start up. [II.A]