DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 9, 2001

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: H. Waugh and W. White, Pantex Site Representatives
SUBJECT: Pantex Plant Activity Report for Week Ending November 9, 2001

DNFSB Activity Summary: H. Waugh and W. White were on site all week. A. Matteucci and L. McGrew were on site all week to observe the W78 Nuclear Explosive Safety Study.

W80 Command Disablement: BWXT concluded its contractor readiness assessment for W80 command disablement testing on Friday. There were two pre-start findings from the review: the authorization basis flow down matrix was not entirely accurate, and several procedure steps could not be followed as written or were written in a confusing manner. Several issues with the procedures were identified earlier in the report from the W80 readiness verification program (previously known as a technical assist). The authorization basis flow down matrix was used to demonstrate flow down of controls from the Justification for Continued Operations, in lieu of updating the safety basis database document. Inadequacies in procedures and errors in the document used to demonstrate authorization basis flow down are issues also identified in other recent contractor readiness assessments.[II.A]

Recommendation 2000-2: DNFSB staff held a telephone conference this week with BWXT and AAO personnel to discuss the status of 2000-2 deliverables and potential changes to previously submitted deliverables. During a Board visit in July 2001, AAO and BWXT agreed to consider adding RAD-safe systems for several facilities and air conditioning systems for certain Zone 4 magazines to the list of vital safety systems. The RAD-safe systems are being added to the list of vital safety systems. However, AAO has not yet made a decision on whether to add the Zone 4 air conditioning systems.

Also discussed was an AAO proposal to conduct its phase II assessment on the control of drawings for all vital systems rather than conduct a detailed assessment of any particular vital safety system. The rationale for this is that the most likely candidate for a phase II assessment, the fire protection system, has undergone or is undergoing several detailed reviews already and adding a phase II assessment would be of little value. Although several other vital safety systems (uninterruptible power supplies, crane assemblies, emergency lights, blast valves, and continuous air monitors) received less than perfect ratings during the phase I evaluations, they were not selected for phase II assessments. DOE headquarters has not yet concurred with this approach. AAO and BWXT have not yet finalized the scope of the proposed assessment of system drawings. [II.A]

W78 Nuclear Explosive Safety Study: NNSA began its nuclear explosive safety study (NESS) this week for W78 disassembly, inspection, and repair operations. The NESS will continue next Tuesday. The NNSA readiness assessment will begin on Monday. Issues discussed so far include the following:

- Based on LANL presentations to the NESS group, it appears that the LANL process for addressing Pantex change control issues, particularly related to certain tooling changes that require concurrence by LANL, is not clearly structured and organized. LANL was unable to definitively state that the review of the changes would involve LANL personnel with expertise appropriate for understanding the safety implications of the change.
- The senior NESS group advisors noted the lack of detailed information regarding the characterization of high explosive response in abnormal environments, but suggested that a risk assessment approach to utilizing existing data, expert judgement, and known uncertainties might still prove valuable. [II.A]