DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 11, 2002

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: H. Waugh and W. White, Pantex Site Representatives
SUBJECT: Pantex Plant Activity Report for Week Ending January 11, 2002

DNFSB Activity Summary: H. Waugh and W. White were on site all week.

Paint Bay Basis for Interim Operations (BIO): On Tuesday, OASO sent a letter to BWXT declining to approve the Paint Bay BIO. OASO found the risk portrayed in the BIO to be unrealistic, leading in some cases to unnecessary safety controls. This risk resulted from assuming a worst case weapon response for most scenarios. OASO asked BWXT to resubmit the BIO after revising it to incorporate a more realistic weapon response for the types of systems that will be painted in the bay. Since the approach taken in the Paint Bay BIO is similar to the approach being used in the Bays and Cells hazard analysis to be submitted in the near future, OASO also asked BWXT to consider the comments on the Paint Bay BIO prior to finalizing the Bays and Cells hazard analysis.

The required change in direction and scope for these authorization basis (AB) documents may further jeopardize the already compressed schedule for completion of all site-wide AB documents. These documents, which are necessary to bring the Pantex Plant AB into compliance with the requirements in 10 CFR 830, are to be submitted to NNSA prior to April 10, 2003. Even before the OASO letter, the schedule for authorization basis work over the next year was success-oriented. Between now and February 2003, eleven site-wide AB documents are scheduled for submission to NNSA. Most of these documents have already slipped from the schedule submitted to the Board as a deliverable under Recommendation 98-2. In addition, a new W62 hazards analysis report is due in June 2002, and new hazard analysis reports for several other weapons programs are due in 2003.

BWXT and OASO AB personnel are engaged in discussions on approaches to reduce the time required to develop individual AB documents and increase the likelihood that the current schedule can be met. Many of these approaches, such as the use of W78 weapon response data as a template (as discussed in the letter mentioned above) increase BWXT's responsibility for applying and interpreting weapon response information. However, it remains unclear whether BWXT, the national laboratories and NNSA have sufficient resources to meet the most recent schedule. Even if the schedule for submission of site-wide AB documents is met, most of the documents are likely to be submitted within a relatively narrow time period, leaving NNSA without sufficient resources to review and approve the documents in a timely manner. [II.A]

B83 Electrical Test: On Tuesday, BWXT personnel completed electrical testing on a B83 unit which had originally failed an electrical test in April 2001. The unit had undergone additional testing in June 2001, at which time it passed the test failed in April, but failed other tests. In response, design agency personnel then proposed a series of electrical tests aimed at fault isolation. The tests were approved by an NNSA nuclear explosive safety review team.

The electrical tests completed on Tuesday were all successful. Conduct of operations during the tests was excellent. At two points during the test procedure, technicians halted the tests. The first time, technicians stopped work when an error in the procedure was noted. The second time, technicians stopped work to obtain appropriate postings from radiation protection personnel.

The lack of failures in the first series of tests led the design agency to decide the second series of approved tests was not necessary. As sufficient information now exists regarding the safe state of the unit, BWXT expects an engineering release from the design agency permitting disassembly of the unit to continue. The design agency may, however, require additional electrical tests on certain components after those components are removed from the unit. [II.A]