

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 27, 2004

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: T. Hunt, Pantex Site Representative
SUBJECT: Pantex Plant Activity Report for Week Ending August 27, 2004

DNFSB Staff Site Activity: T. Hunt was off site all week. Staff member W. White provided site representative coverage as well as reviewed electrical and lightning protection systems with A. Gwal and outside expert R. Collier..

Electrical and Lightning Protection Systems. The DNFSB staff review of lightning protection systems at the Pantex Plant was a continuation of periodic reviews by the staff to evaluate progress in implementing the project plans related to lightning protection. Several key deliverables in the project plans have been completed since the last staff review. In an August 2002 letter, the Board noted the need to complete test reports for certain facilities expeditiously. These reports have been completed. In other areas, the staff found that progress in addressing the open issues in the lightning protection plan continues to be slow. Issues related to indirect effects of magnetic and electric field coupling, spalling of interior concrete surfaces, and the effects of bond wire inductance remain unresolved. BWXT and the national laboratories continue to work on these issues, however. The staff provided comments and suggestions on specific deliverables related to these activities and encouraged continued progress.

The staff also reviewed electrical systems at the Pantex Plant, including proposed modifications to Buildings 12-44 and 12-64. For these facilities, the modifications to the electrical systems do not include addressing known deficiencies in the surge suppression of electrical systems. This issue prompted a shut down of certain operations earlier this year until compensatory actions were implemented. BWXT and PXSO have not yet reached a decision on the best option for long-term resolution of the surge suppression issue; however, PXSO does not currently plan to include the resolution in the scope of the modifications for 12-44 and 12-64.

The staff walked down several facilities and equipment areas and noted significant progress in addressing electrical system issues raised by the Board in the August 2002 letter. Vulnerable electrical equipment had been provided with covers to protect against fire suppression systems, non-rated electrical equipment has been screened and reviewed, and leaking roofs in equipment areas have been repaired. Less progress was noted in resolving issues related to the development of a design adequacy analysis procedure. [I, E2]

Suspension of Subcontractor Work. On Thursday, BWXT suspended all non-administrative work at the Pantex Plant involving subcontractors. A series of near-misses, including one on Wednesday in which a subcontractor cut into conduit with an energized electrical line, led BWXT to this decision. BWXT will assess each subcontractor's compliance with safety criteria at the Pantex Plant prior to allowing that subcontractor to resume work. [I, M9]