

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 6, 2004

**MEMORANDUM FOR:** J. K. Fortenberry, Technical Director  
**FROM:** T. Hunt and W. White, Pantex Site Representatives  
**SUBJECT:** Pantex Plant Activity Report for Week Ending August 6, 2004

**Activity Summary:** T. Hunt and W. White were out of the office for the week.

**Lightning Detection and Warning System (LDWS).** For the past three months, one of the four detection sensors of the safety-class LDWS has experienced sporadic, frequent failures. The suspected cause of these failures is the communication circuit (telephone line) between the sensor in Pampa and the Pantex Operations Center. The *Technical Safety Requirements for Pantex Facilities* (TSRs) mandates that all four sensors be operable for the LDWS to be considered operable. An action statement in the limiting condition for operation (LCO 3.5.1) for the LDWS allows up to two weeks to restore an inoperable sensor. BWXT enters the LCO each time the sensor communication circuit fails. If the communication circuit returns for some undefined length of time (at the discretion of the Pantex Operations Center), BWXT will exit the LCO and re-enter it when the sensor fails again. This allows BWXT to reset the two-week time limit for an inoperable sensor.

Although the *Lightning Basis for Interim Operation* notes that the loss of one sensor has only a marginal impact on overall system reliability, the TSR for the LDWS was written to require all four sensors to be operable for an operable LDWS. The frequently inoperable status of a safety-class system that is required to be operable at all times has not been reported under the DOE occurrence reporting system (ORPS). However, BWXT has recently initiated actions to identify the source of the failure and persuade the vendor to make necessary repairs or modifications to the communication circuit. Actions taken during the past two weeks appear to have reduced the frequency of the failures. In addition, BWXT is working to obtain data from additional sensors belonging to other organizations and integrate that data into the LDWS to increase the redundancy in the system. [I, E2]

**Deactivation and Decommissioning (D&D).** Most of the facilities at the Pantex Plant that have been deactivated to date have been relatively low-hazard administrative, storage, utility, waste treatment, laboratory, or high explosive facilities. Environmental Management received a few facilities from Defense Programs in 2001 and will complete its activities in FY 2006. Several other D&D projects are being sponsored by the Facilities and Infrastructure Recapitalization Program. During the next few years, two facilities with residual radioactive and high explosive contamination are slated for D&D. After FY 2006, funding and workload shrink, as demolition is coordinated with construction. [II, NA]