DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 22, 2000

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: H. Waugh and W. White, Pantex Site Representatives
SUBJECT: Pantex Plant Activity Report for Week Ending December 22, 2000

DNFSB Activity Summary: H. Waugh was on site all week. W. White was on site all week, with the exception of annual leave taken on Wednesday.

Robotic Weigh and Leak Check System: DOE completed its second readiness assessment for the new robotic weigh and leak check system (WALS) in Building 12-116. The original assessment was conducted in November 1999. This automated, remotely operated system is designed to replace current weigh and leak check operations in 12-44, Cell 8. DOE has identified several preliminary pre-start findings and post-start findings. The final report has not yet been issued, however, and may not be issued until early January 2001. At least one preliminary pre-start finding had site-wide implications.

One pre-start finding involved the use of WALS software as a procedure for operations. Technicians following the standard paper procedures are directed at certain points to follow on-screen instructions and to conduct operations as directed by the software. Some of the software-directed instructions (such as radiological swipes) have potential safety implications. It was not clear to the readiness assessment team, however, how changes to the WALS software would be covered under the unreviewed safety question process at Pantex. Given the use of software at Pantex in several other safety-related applications (lightning detection and warning system and certain nuclear explosive testers), it may be necessary to develop a more formal plant policy addressing change control for software in safety-related applications.

Another pre-start finding identified a conflict which exists between facility procedures on evacuation requirements during fire alarms. This conflict was noted in the original DOE readiness assessment, but was never resolved. Post-start findings included minor procedural inaccuracies and the presence of process hazards in procedures that are not reflected on the facility process hazards board (the hazard in question, alcohol, is not actually used in WALS operations). [II.A]

Pit Repackaging: The new Pantex contractor, BWXT, brought in a team of efficiency experts from the Kansas City Plant to review pit repackaging operations. The team is evaluating the process with an eye towards increasing productivity with existing resources. The review is expected to continue after the holiday break. Coincidentally, on Wednesday, the pit repackaging program met its January 31, 2001, goal of 300 pits repackaged for the fiscal year. The repackaging rate continues to exceed DOE's modest expectations, but remains well below the 200 pit per month commitment DOE made to the Board in Recommendation 99-1. [II.A]

Fire Protection System Maintenance: Pantex continues to experience difficulties with the maintenance of the safety-class fire protection systems. Last week, the semi-annual surveillance revealed that the specific gravity of the batteries required as back-up to the Detronics panel for the UV-activated deluge system in Building 12-99 was too low. The system was declared inoperable per the technical safety requirements (TSRs). Water was added to the batteries and the system was declared operable approximately one week later. This was within the fourteen day time frame established in the TSRs. It was noted, however, that a probable contributor to the low water levels in the batteries was the absence of the monthly preventive maintenance checks for the batteries. The monthly checks had been suspended during the facility upgrade in February 1999 and were never reinitiated. The monthly preventive maintenance, required under NFPA 72 (a standard contained in the Pantex SRIDs), has resumed.[II.A]