DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: 7 September 2007
SUBJECT: Pantex Plant Weekly Report

Board Visit: Dr. A.J. Eggenberger, Mr. Joseph Bader, Mr. Larry Brown, and Dr. Peter Winokur were at Pantex to meet with federal and contractor personnel and review the safety of nuclear and nuclear explosive operations.

Pit Repackaging Line Relocation: BWXT recently provided PXSO with its rationale for relocating the pit repackaging line from its current location to the proposed facility. In addition to cost savings, efficiencies are expected to be gained by consolidating the majority of pit operations in a single facility; therefore, minimizing the movement of pits through the ramps for processing. There will be an accompanying decrease in worker dose due to the reduced handling. The project to upgrade the accepting facility and transfer operations is estimated to take 20 months to complete. Processing of pits from dismantlements continues in its current location.

Radiation Protection Program: BWXT responded to a recent PXSO letter that took issue with the implementation of controls for high radiation areas (HRAs) and the posting of survey maps. The BWXT conclusion was that actions associated with implementation of controls for HRAs is not technically justified and would result in significant impacts to weapon operations. Implementation of HRAs would require hiring a couple dozen additional technicians and support personnel, as well as revising or developing procedures to incorporate new HRA controls. In addition, PXSO requested that BWXT provide justification for why an exemption to 10CFR835, *Occupational Radiation Protection*, should or should not be sought if HRA requirements cannot be fully met for weapon operations. On another topic, the BWXT response contends that the current posting and maintenance of dose rate maps are in compliance.

Electrical Power Outage: On Sunday, electrical power was lost to several nuclear explosive facilities due to the failure of a refrigeration compressor located in the Building 12-44 equipment room. The failure caused a ground fault condition that tripped the main breaker for the affected facilities. The fire alarm systems switched to their battery backups, as designed, and remained operational during the seven hour power outage. However, the uninterruptible power supply (UPS) batteries that support other facility safety systems (e.g., blast door interlocks, emergency lights, air monitors) were drained. A loss of power checklist was used to restore and verify system operability. Due to the length of the outage, the fire system backup batteries and facility UPS batteries were recharged for at least 24 hours before all systems were declared operable

Legacy Materials: On 8 December 2006, the site reps reported that BWXT had been storing scores of empty B/W53 cases in an unsheltered area of Zone 4 for many years. The cases were tagged as potentially containing radioactive contamination on internal surfaces. The last of the cases were recently removed from the gravel pad in Zone 4 and shipped to a sanitization and recycling subcontractor in Oak Ridge, Tennessee.

Breached Pit Contingency: Last year, BWXT completed a preliminary breached pit capsule design and submitted it to the physics laboratories for review. The laboratories decided not to concur and, instead, are working with Y-12 to develop the DPP-1 container; which will be used to handle suspect pits in the future.