DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 4, 2005

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
SUBJECT: Pantex Plant Activity Report for Week Ending February 4, 2005

Radioisotopic Thermoelectric Generator (RTG) Dismantlement. BWXT recently responded to a request by NNSA to develop a set of options to address where the mission for the dismantlement and disposal of RTGs–other than the heat source–should take place. The proposed process at Pantex would require a radiographic inspection, removal of the outer case and separation of encapsulated components in a glovebox using newly designed special tooling, and packaging of the heat source for off-site shipment. Key assumptions are that Pantex workers receive plutonium handling training, limited radiographic capabilities are available, the process will not generate transuranic waste, and no new safety-class controls will be required. BWXT is capable of beginning RTG dismantlement operations in an existing bay by fiscal year 2009.

Lockout/Tagout Procedure Violation. In December, a relief valve assembly was installed by a sub-contractor in a facility within the Material Access Area. Prior to the installation, BWXT personnel performed the lockout/tagout procedures on two valves specified in the work package. The valve lineup specified in the work package was not commensurate with the scope of work of the relief valve installation. An additional valve was closed without proper authorization prior to the subcontractor performing the installation. Closure of the unauthorized valve resulted in plant air being cut from the facility without previously notifying the facility manager.

Conduct of Operations. Early this week, it was discovered that a weapon component could not be removed from a transportation cart for processing due to an incorrect orientation. The production technician misinterpreted the procedural requirement and performed the unit installation step incorrectly. A back-out procedure was initiated and the unit was returned to the production bay. Engineering disposition is required prior to repositioning the component and sending it back to the special processing bay. There were no immediate safety concerns in this case, but the event is similar to other recent alignment issues dealing with transportation carts.

Environment, Safety and Health (ES&H) Assessment. This week, the review team from the Office of Independent Oversight and Performance Assurance (OA) completed its field observations of ES&H line management. The OA team noted several safety related improvements since its last Pantex review. No issues were identified in the preliminary outbrief that require immediate attention to continue safe nuclear explosive operations. Several observations and weaknesses were noted in the areas of hazards identification, feedback and improvement, and safety systems.

Safety System Oversight. PXSO recently performed a Safety System Oversight (SSO) Program Self-Assessment and determined it was satisfactorily implementing the functions described in DOE M 426.1-1A, *Federal Technical Capability Panel Manual*. PXSO has designated four positions that require SSO qualification. Two of the designees are currently qualified and two are completing the process. During the OA review of SSO, concerns were noted in the areas of tracking and trending system performance and independent functionality assessments.