DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 9, 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 July 9, 2004

Recommendation 99-1: BWXT personnel repackaged the 10,000th pit this week into a sealed-insert container, providing an enhanced interim staging environment for a significant percentage of the plutonium pits at the Pantex Plant. This repackaging effort is part of the DOE response to Board Recommendation 99-1. For the month of June, BWXT repackaged 258 pits, setting a new record for the monthly pit repackaging rate. Over the past three years, BWXT has successfully maintained the repackaging rate to which DOE committed in its Implementation Plan for Recommendation 99-1. [I, NA]

Hoisting: At the request of PXSO, BWXT personnel held a critique on Wednesday to discuss the failure of the hoists in two mass properties facilities. The hoists were installed in September 2003. To address excessive oil leaks, system engineers directed maintenance personnel to shut off the lubricator and to remove excess oil from the system. The intent of the system engineers, apparently, was to have the maintenance personnel restore the lubricator to operation with a lower setting for the amount of oil. The modification made to the work packages for the hoists in the facilities noted only instructions to turn off the lubricator and drain the excess oil. Maintenance personnel apparently never understood the intent to restore the lubricator with a lower setting. Subsequent periodic maintenance on both hoists was apparently completed under the assumption that the instruction to service and inspect the lubrication system meant ensuring it remained off and empty.

In late June, personnel identified an air leak on one of the hoists. Maintenance personnel determined the leak was internal to a valve assembly. After working with the hoist, maintenance personnel determined it raised correctly but lowered slowly. Maintenance and facility personnel determined the hoist was sufficiently operable to allow a unit in process to be lifted. Detailed evaluation later by system engineering and maintenance personnel identified the lubricator was empty and turned off, leading to the failure of the valve assembly. Personnel then identified the hoist in the other mass properties facility had its lubricator turned off and was experiencing similar problems.

The critique will be reconvened next week to gather additional information from key personnel who were not on site this week. On a preliminary basis, however, the information presented at the critique seems to raise questions regarding work control for safety-class equipment. During the critique, personnel noted that the USQ screen for the installation work package occurred before the instruction to disable the lubricator was added to the work package. Personnel attending the critique were unaware of any subsequent USQ screen or system engineering review for the configuration change to the safety-class equipment. Personnel in the facility resumed operations using the hoist before the hoist was fully repaired. Maintenance and manufacturing personnel did not believe the abnormal behavior of the hoist impacted its safety function and chose to lift the unit without a formal evaluation of the operability of this safety-class equipment by system engineering personnel. BWXT is evaluating changes to its work order process to address these issues. [I, E2]