

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 6, 2001

**MEMORANDUM FOR:** J. K. Fortenberry, Technical Director  
**FROM:** H. Waugh and W. White, Pantex Site Representatives  
**SUBJECT:** Pantex Plant Activity Report for Week Ending April 6, 2001

**DNFSB Activity Summary:** H. Waugh was on site all week. W. White was on annual leave Monday and Tuesday and was on site Wednesday through Friday.

**Work Planning:** On Thursday, another incident occurred at Pantex which reflects questionable work planning for non-nuclear, non-explosive activities. On Thursday, a flange blew off a domestic water valve while BWXT personnel were working on the valve. The water line containing the valve had been isolated, but the isolation was ineffective. A limited critique on Thursday afternoon revealed several possible contributing factors: a bleed-off path for water pressure in the isolated part of the line was either non-existent or ineffective; preventive maintenance on the valves used for isolation had been suspended, leading to build up in an isolation valve that prevented its complete closure; and the Pantex Plant lockout-tagout system was deemed not to apply to lower pressure water lines. This occurrence appears similar to a December 1998 occurrence involving a gasket that blew out during maintenance of an elevated water storage reservoir. Following the 1998 occurrence, an investigation team concluded that the incident was a result of “inadequate management and supervision of the work planning and control process that allowed corrective maintenance to proceed without adequate procedures, safety review, supervision, and technical details of the hazards present.”

This incident follows several recent occurrences involving non-nuclear, non-explosive work. Last week, the BWXT general manager appointed an accident investigation team to review several occurrences over the past few weeks that involved work done by non-BWXT personnel. The investigation is being conducted using the guidance in DOE’s *Implementation Guide for use with DOE Order 225.1A, Accident Investigations*. The investigation appears thorough, and a draft report should be available by the end of next week. However, the scope of the investigation is limited to non-BWXT work planning. Based on the number of occurrences in the past few months, the application of the integrated safety management process to non-nuclear, non-explosive work for both BWXT and non-BWXT activities needs improvement. These types of work activities are still occurring without adequate procedures, safety review, and technical knowledge of the hazards present. <sup>[II.A]</sup>

**Unauthorized Nuclear Material Movements:** A little more than a week after overloading a bay due to an unauthorized movement of special nuclear material, BWXT once again conducted an unauthorized move of nuclear materials. In the most recent case, the movement was between areas in the same cell. These areas (the round room and a storage cubicle) have separate inventory limits. On Monday afternoon, personnel attempted to contact the nuclear materials control center (NMCC) to obtain authorization to move nuclear material between the round room and the storage area. After failing to contact the NMCC, production personnel decided to go ahead with the move after leaving a message on the NMCC recorder. This action violated plant procedures requiring NMCC approval to be obtained before movements are made. In this particular incident, no inventory limits were exceeded. This was, however, the fourth move that has occurred in the past four months without appropriate approval from the NMCC. BWXT is exploring additional corrective actions. <sup>[II.A]</sup>