

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy J. Dwyer, Technical Director
FROM: Matthew Duncan and Rory Rauch, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending January 22, 2010

Special Tooling: Prior to starting a W76 disassembly operation, technicians discovered that the latch on the workstand that holds the swing arm away from the unit was broken. Operations never commenced and engineering personnel met to discuss potential restart options. The swing arm is credited to protect sensitive configurations from tools or subassemblies that are being added or removed from the unit. However, when not in use, the swing arm also presents an impact hazard if it is not held in place. B&W determined the introduction of the tooling required to perform an in-service repair would present a greater hazard than completing the disassembly with a technician holding the swing arm away from the unit. Therefore, B&W has prepared a justification for continued operations (JCO) to capture the risk associated with administratively controlling the swing arm. PXSO expects to receive the JCO early next week. B&W plans to remove the workstand from the facility for repair after this unit, at which time the JCO will no longer be valid. Tooling is performing an extent of condition review to ensure a similar problem does not exist on other copies of the workstand.

Potential Inadequacy in the Documented Safety Analysis (PISA): B&W declared a PISA to reflect an unanalyzed hazard scenario during W78 operations. B&W will request weapon response to determine whether additional controls or process changes are necessary. Until then, B&W will rely on the secondary support features of the tooling utilized during the subject operational sequence as a compensatory measure. No compensatory measures were identified for the operations that take place prior to the engagement of the secondary support features; B&W believes the time-at-risk for the unanalyzed hazard during this part of the operation is sufficiently low.

Transportation Procedure Violation: The Pantex Material Move System is used to authorize the safe transportation of nuclear explosives, explosives, and nuclear material within the plant. Several Specific Administrative Controls (SACs) are intended to prevent movement of high explosives (HE) while a nuclear explosive or nuclear material is also being transported nearby. Recently, a configuration 1 nuclear explosive-like assembly (NELA)—a designation for a unit containing live main charge HE and an inert pit—with a canned subassembly (CSA) was incorrectly denied permission by the system to be moved outside of the HE move window. Later, the window was opened and the item was moved. After the move, the production section manager realized that plant procedures (those that implement the transportation program SACs mentioned above) require NELAs with CSAs to be moved while the HE move window is closed. Upon discovery, the generic Limiting Condition of Operation was entered as a precaution but no actions were ultimately necessary. It turned out that no other prohibited items were being transported at the time, so the SAC was not violated. Further research determined that the NELA was labeled incorrectly in the plant's material resource planning tool, causing the system to prevent it from being moved outside of the HE move window. An extent of condition reviewed revealed that several other NELAs, which had not yet been assembled, were also labeled incorrectly.