DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy Dwyer, Technical Director
FROM: Matthew Duncan and Rory Rauch, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending April 9, 2010

W78 Operational Safety Review (OSR): B&W submitted and PXSO approved a closure plan for the two post-start findings from the W78 OSR that occurred last November. The first finding was that bare high explosive (HE) components are not sufficiently protected from mechanical impacts that may initiate the HE. Some changes to address the finding have been made. Additionally, B&W will evaluate and implement use of new or modified existing carts for installing and removing tooling during HE operations. These changes are due May of next year. The second finding was that some dissipative drag straps used in carts are not flexible enough to provide reliable continuous contact with the dissipative floor, thus defeating an important electrostatic discharge control element. B&W will redesign the drag strap or implement another existing design that is more reliable. Completion of this action is due in September.

Radiation Protection Program: B&W submitted a revised version of the Radiation Protection Program to PXSO. This version is intended to bring the program into compliance with a June 2007 change to 10 CFR 835. Implementation throughout DOE is required by July. The only exemptions in use at Pantex continue to be for nuclear accident dosimetry.

Separation System Testing (Sep Test) Operations: NNSA has announced that it will terminate Sep Test operations—a surveillance test that gathers data associated with the performance of the release assembly—for war reserve (WR) submarine-launched ballistic missile systems at the end of FY11. As documented in an associated impact evaluation by Sandia National Laboratories (SNL), NNSA and the Department of Navy (DON) are developing an alternate release assembly (ARA) that, when fielded, will render Sep Test operations at Pantex obsolete because the ARA will never be installed on units shipped to Pantex. SNL believes the type of data currently obtained in Pantex Sep Tests can be obtained for ARAs using an inert test body. NNSA has indicated that it will negotiate with the DON, Strategic Systems Programs on alternative testing options that do not require the use of WR units.

Special Tooling: Technicians use the 1230 cart as the workstand and transfer cart for most operations on configurations in which an aeroshell is installed. During the last year, technicians were forced to declare several work suspensions on operations involving the 1230 cart. Examples of the events that led to these suspensions include: the inability of the cart to mate with an enhanced transportation cart (see 3/13/09 report), the cart trunnions locking up while technicians were raising the unit (see 8/21/09 report), and the loss of function of the hand crank during a nuclear explosive operation. While none of these suspensions led to a direct safety concern, the tooling design engineer did identify several modifications to the cart that would prevent recurrence of these events. The engineer initiated the work order to revise the cart in January, but production tooling support personnel are still in the process of scheduling the revision to the 58 copies of the tool. Because of the cart's ubiquity and B&W's desire to maintain current production rates, production tooling support will only be taking a few carts out of service at a time to perform the revision. The complete revision of all 1230 carts will likely take another several months.