

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy J. Dwyer, Technical Director
FROM: Timothy Hunt and Rory Rauch, Pantex Site Representatives
DATE: 2 January 2009
SUBJECT: Pantex Plant Weekly Report

Flammable Material Reduction: B&W Pantex has substituted hydrofluoroether (HFE) for isopropyl alcohol (IPA) for some B83 cleaning operations during disassembly and dismantlement. The HFE is used numerous times during the process to aid in decontamination and is a significant improvement in fire safety. The B83 joins the W76 program as the only two currently authorized to use HFE in lieu of IPA.

Bond Wires Project: B&W Pantex recently completed a three-year project to shorten as many safety-class bond wires as practicable to less than 24 inches. The Sitewide Safety Analysis Report recommends that bonds should not exceed one foot in length unless necessary to avoid an obstruction or find an available bonding point. Of the more than 6000 bonds in nuclear explosive facilities—about 250 of which were longer than 24 inches—approximately one percent could not be shortened to less than 24 inches and those will be accepted as-is. The remaining long bonds are mostly attached to jib crane booms, sheetrock walls, or pit deck plates. About 1500 bond wires are longer than one foot.

Weapon Trainer Upgrades: B&W Pantex issued its weapon trainer maintenance plan that outlines a formal program and process to ensure continued operation of trainer units. The plan describes tasks each trainer unit will undergo to identify replacement part requirements. Fourteen trainer units will be evaluated in both FY09 and FY10, with the last four trainers evaluated in FY11. B&W Pantex also recently issued a project plan to upgrade two W88 trainer units in FY09. Upgrades to the W87 and W78 were completed in FY08.

Nuclear Explosive Safety (NES) Post-start Findings: B&W Pantex recently submitted a closure plan to PXSO that addresses 57 NES post-start findings that are open or pending approval. Plans are to have closure packages for all except 11 current open findings submitted for approval by the end of FY09.

W78 Operations: Production delays and retrenchment due to a new weapon response from the design agency will affect the W78 program in FY09. Significant changes to the W78 documented safety analysis primarily to address electrostatic discharge concerns have impacted the schedule more than originally planned. Programmatic readiness reviews will need to be performed since the disassembly process will have been inactive for more than one year.

Special Nuclear Material (SNM) Storage: Due to budget limitations, PXSO requested B&W Pantex develop a contingency plan in the likely event that line item funding will not be available prior to FY13 to build a new underground storage facility. Recent calculations had shown that capacity would be reached in the 2014 timeframe. A reanalysis indicates that a few relatively inexpensive actions could increase the storage capacity. Raising the mass limits in some bays so they are only restricted by space considerations, reclaiming several bays that are currently used for training, and coordinating a just-in-time weapon shipping schedule could add four or more years to the ability of Pantex to meet SNM storage needs.

Pit Transfer Cart: A proposal to use the SNM Component Requalification Facility pit transfer cart for inter-facility moves through the ramps for processing or storage is being considered. This would eliminate some bare pit handling steps but the cart as currently designed would not provide containment in the event of a breach.