

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 July 2, 2010

DNFSB Activity: J. Anderson was at Pantex to observe the second week of the B53 SS-21 Nuclear Explosive Safety Study. R. Tontodonato was onsite to observe operations.

Contingency Glovebox: B&W wrote a letter to PXSO proposing to ensure the availability of a reliable glovebox with trained personnel for use in responding primarily to an event involving a breached pit. The glovebox could also be used to evaluate and disposition dropped or damaged pits without a breach, inspect pits with imperfections or other anomalies, or contain a breached canned subassembly. B&W has a mobile glovebox that had been designed and built in 1997 for this purpose but was never made operational. The design documents and drawings indicate it had been designed to the appropriate standards at the time, such as DOE Order 6430.1A, *General Design Criteria*; ERDA 76-21, *Nuclear Air Handling Handbook*; and AGS-1994-G001, *Guideline for Gloveboxes*. B&W proposed to certify the existing glovebox, establish a core response team that would receive plutonium handler training at another DOE site, develop glovebox test and maintenance procedures, and exercise all aspects of the use of the glovebox prior to declaring it ready for use. Details on how the glovebox would be covered by the documented safety analysis and what type of readiness assessment would be required have not yet been finalized. B&W's proposed completion date is the end of September 2011. PXSO is evaluating the proposal.

Formality of Operations: B&W has curtailed operations in the Special Nuclear Materials Component Requalification Facility (SNMCRF) to facilitate a technical quality review in response to the recent NNSA letter that expressed concern with the formality of SNMCRF operations (see 6/18/10 report). Representatives from B&W, Los Alamos National Laboratory, and Lawrence Livermore National Laboratory will perform a review to verify that the design definitions for SNMCRF's acceptance equipment and production processes are complete and properly implemented. The review team will evaluate each SNMCRF station individually. When the quality review team deems the station acceptable for restart, a second review team led by the deputy manufacturing division manager will evaluate the formality of operations at that station. As B&W restarts stations, PXSO has assigned a team to perform enhanced day to day oversight of SNMCRF operations with a focus on quality and conduct of operations. PXSO will determine whether it needs to perform its own independent assessment in the coming weeks.

Operational Suspension: Technicians suspended a W80 disassembly operation after they were unable to separate the main high explosive charges using the currently approved process. Process engineering and manufacturing personnel are developing several recovery options in parallel. The first recovery option, which program personnel selected because it was the simplest, involves the technicians attempting to achieve the separation by hand or using an approved implement (e.g., shimstocks, spatulas). Process engineering should have the necessary approvals for the recovery procedure that governs the first option by early next week. If this operation is unsuccessful, B&W will continue to pursue the other, more complicated recovery options.