

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: 22 December 2006
SUBJECT: Pantex Plant Weekly Report

B61 Processing: The B61 is the only program that has consistently implemented Stage 2 (one crew, two units worked serially) of multi-unit bay operations. Production management formally authorizes the transferral of work to the second unit by making facility logbook entries and briefing the crew. The process has been used in the bay primarily to move the work crew from one unit to another when tooling is unavailable to proceed on the first unit. Special tooling and production technicians (PTs) needed for the B61 program are in short supply and production rates have reached the limit that available resources can support. Completion of training classes for 16 additional PTs necessary to meet production goals has been delayed until February.

Lightning Bonding: The Sitewide Safety Analysis Report (SAR) credits the bond wires as a safety class system and reads, "The bonds must be as short as possible ... and should not exceed ... one foot unless necessary to avoid an obstruction or to find an available bonding point." BWXT analyzed the excessive lengths and the associated effects on electrical potential differences across the wires between two metallic surfaces and found the condition to be acceptable. The engineering evaluation found that although impedance increases with bond wire length, it is sufficiently low to meet functional requirements of the nuclear explosive facilities up to 24 inches. PXSO has approved a SAR change to make the short bond length a good practice rather than a requirement. BWXT has generated a work order to reduce bond wire lengths to less than 24 inches where possible. For those 30-50 bond wires where shortening or relocating would pose a significant problem, a special analysis to verify acceptability will be performed.

Production Section Manager (PSM) Training: Weapon-specific training of the BWXT PSMs (i.e., first-line operations supervisors) has been in development for several years. As part of a conduct of operations improvement plan issued last year, BWXT reevaluated the supervisor training and qualification program against the requirements of DOE O 5480.20A, *Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities*. It concluded that the program was in compliance with order requirements but an improvement could be made in the development and formalization of more comprehensive weapon-specific training. The current Training Program Description for PSMs—specific to weapon work only—requires a general weapon orientation course and field observations. Weapon-specific course modules for the W62, W78 and W87 programs have recently been created. The PSM must pass a written exam upon completion of each module. Although no PSMs have completed a weapon-specific module to date, many already have more extensive training from their experience as PTs. Because the PSMs are not authorized to perform hands-on work, BWXT management does not believe that weapon-specific training for the PSMs needs to be as encyclopedic as PT training.

Pantex Employee Safety Concerns: PXSO issued the final report on its investigation into the claims made in the 7 November anonymous letter to BWXT management. The review concluded that the assertions of a poor safety culture existing at Pantex are unsubstantiated. The review team offered a number of recommendations they thought would strengthen Pantex safety management programs. Of particular note are the suggested actions to improve both the contractor and NNSA oversight of nuclear explosive safety.