

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: 9 November 2007
SUBJECT: Pantex Plant Weekly Report

Senior Management Team (SMT): The SMT—which includes representatives from NNSA, BWXT, LANL, LLNL, and SNL—met at Pantex last week to discuss the following: schedules for implementing SS-21 for the W88, B53, and W84 programs, cell barrier design options, and yearly performance metrics. The SMT plans to evaluate programmatic start-up activities to identify possible schedule acceleration improvements (e.g., conducting reviews in parallel). In addition, the SMT spent a significant amount of time discussing lightning hazards created during task exhaust operations in bays that have implemented a static dissipative environment (i.e., B61 and W80 operations). BWXT has implemented separate compensatory measures on the two affected programs: the W80 operating procedure directs that the task exhaust be kept two or more inches away from a sensitive component and a B61 supplemental procedure instructs the production technicians to discontinue certain task exhaust operations during lightning warnings. Neither of these administrative measures are formal safety-related controls. It appears that the SMT is going to focus additional attention on lightning hazards and controls.

Separation Testing (Sep Test) Operations: During a recent walk-down of the Sep Test process, authorization basis engineers identified four conditions that may not be adequately addressed in the Sep Test Safety Analysis Report (SAR): at least two floor mounted cameras were unexpectedly found to have energized monitoring circuits, power cords for cameras and lights are in contact with the test fixture, the moveable power panel for some cameras and lights may not be internally grounded, and the Sep Test operating procedure requires that a component be electrically isolated, but this requirement is not addressed in the SAR. As required by the recently updated new information process, BWXT reported a potential inadequacy in the documented safety analysis (PISA). As a compensatory measure, no Sep Test operations will be conducted until the issues are resolved.

Lightning Detection and Warning System (LDWS): The safety basis credits the LDWS to detect and communicate if there is a high probability of lightning strikes in the area of the Pantex Plant so that lightning sensitive operations can be suspended. Currently, two of the four lightning detection sensors—Boy's Ranch, Pampa, Happy, and Clarendon—must be functioning for the LDWS to be considered operable. Earlier this year, after several years of planning, BWXT began to purchase real-time lightning data gathered from four additional lightning detection sensors. BWXT has also been upgrading the software and hardware to enable the operations center to utilize this data, thereby increasing the accuracy and effectiveness of the LDWS. BWXT is developing a safety basis change package that will change the requirement for the number of functioning lightning detection sensors from two of four to three of eight, which will likely reduce the number of occurrences BWXT is required to report.

Nuclear Explosive Safety (NES): BWXT submitted a plan to PXSO that includes a schedule for closure of 45 open NES evaluation post-start findings. The findings include issues identified during the Approved Equipment Program and Lightning Protection master studies and the W76, W78, and B83 program studies. BWXT expects to close the 45 findings by December 2009.