

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: 4 May 2007
SUBJECT: Pantex Plant Weekly Report

Backfit Analysis: Because of the age of most Pantex safety systems, safety function validation and code compliance reconstruction would demand considerable engineering effort. Due to resources being applied to competing priorities during the past couple years, the project to establish the original design requirements, perform as-built comparisons, and assess the design adequacy has not been completed. BWXT recently committed to reinvigorate this effort. The latest plan is to—by December 2007—upgrade or develop the current systems design information, update the plant design criteria manual to reflect prevailing design standards and codes, and perform a backfit comparison to identify gaps and determine any corrective actions.

Safety Systems Tracking and Trending: In September 2006, a new chapter on tracking and trending was added to the Pantex *System Engineering and Configuration Management Program* manual. This established a process for the system engineers to track and trend issues associated with safety-related structures, systems, and components (SSCs) in nuclear and nuclear explosive facilities. Twenty SSCs are currently being tracked. Periodic reports are generated for each system and a recent assessment of five system reports was performed to evaluate compliance with the new manual requirements. Although the collected and evaluated data has the potential to provide valuable input to improve system performance and reliability, weaknesses were noted in the areas of training to the new requirements, utilization of all available information sources, and the engineers use of analysis techniques.

Building 12-44 Cells: BWXT recently submitted the Critical Decision (CD)-0 program requirements and mission need document that defines the approach to upgrading cells 1 and 8. Cell 1 was recently decontaminated and the activities currently being performed in cell 8 can be relocated, so both cells are now available for modifications that would eventually allow a full scope of operations. The project to upgrade cells 2, 3, and 4 is complete and cells 5 and 6 are pending. Based on forecasted workloads, cell utilization will reach capacity in several years. A recognized risk is that previous construction projects have received very few subcontractor bids in specific trades and this could negatively impact the schedule.

Technical Safety Requirement (TSR) Violation: A TSR violation was discovered this week concerning the failure to perform in-service inspections (ISI) on carts that hold or transport W78 units. Although the technical basis document and functional requirements for the carts did not mandate that shiftly inspections be performed to validate proper functioning of the brakes, the inspection requirement was incorporated into the TSRs a few years ago, but was not flowed down into the operating procedures. The inspection will likely be deleted from future revisions of the TSRs.

Special Tooling: A part on a vacuum fixture used to hold a subassembly broke off this week during an evolution to separate two major components. This was the second occurrence recently of the same part failing.