DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 27, 2013

MEMO TO: Steven Stokes, Technical Director
FROM: Thomas Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending December 27, 2013

Equipment Interlock Door Technical Safety Requirement (TSR) Violation: This week, Babcock & Wilcox Pantex (B&W) declared a Specific Administrative Control (SAC) TSR violation for having an inner equipment interlock door left open. The TSR for the combustible controls SAC states that nuclear facility inner bay interlock doors shall be kept closed except when personnel are entering, exiting, or present in the interlock. The Production Technicians (PTs) accessed the equipment interlock several times as part of the pre-operational check to ensure that the facility was operational, and the pre-shift check to ensure that they have all the tooling and equipment needed to perform the nuclear explosive operations that day. The PTs heard someone access the facility through the personnel interlock, left the equipment interlock to maintain two-person control of the unit in the facility, and thought they had closed the equipment interlock door. The NNSA Production Office (NPO) Facility Representative (FR) entered the facility and saw the PTs sitting at the desk near the personnel interlock while the equipment interlock doors were partially open. The FR closed the doors and discussed the TSR control with the PTs.

New High Pressure Fire Loop (HPFL) Pumps and Tanks: The Federal Acquisition Executive (NPO Site Office Manager) for this project has reviewed and approved Critical Decision 4 for the High Pressure Fire Loop Zone 12 South Material Access Area. B&W has completed the Contractor Readiness Assessment (CRA) and has addressed the five pre-start findings, and taken action to address the three post-start findings and eight observations. B&W has transmitted the CRA final report to NPO. NNSA had approved a startup notification report in September that designated the B&W Pantex General Manager as the startup authorization authority. B&W is implementing a phased startup approach. Currently, the only aspect of the new system B&W has placed in service is the jockey pumps used to maintain pressure in the system. NPO's Fire Protection Engineer is closely monitoring the startup activities.

Negative Unreviewed Safety Question (USQ) Determination for Tooling Concern: This week, B&W issued an Evaluation of the Safety of the Situation (ESS) for the Potential Inadequacy in the Documented Safety Analysis (PISA) that was issued for this event. (See reports for 12/13/13 and 12/20/13.) B&W Authorization Basis personnel determined that this event did not introduce a new hazard, create a new initiating event, or increase the frequency of any initiating event in their negative USQ determination. The ESS shows that the impact energy of this tool falling from the ceiling is bounded by impact energies for heavier tools that already exist in the hazard analysis. The ESS further states that the only consequence from this event would be a possible material release, which is already mitigated by the Radiation Protection Program. B&W stated in the ESS cover letter that based on the results of the USQ determination there are no operational restrictions on the use of this tool. B&W's Engineering Evaluation recommends removing all copies of this tool from service and adding a feature to the tool that will prevent the tool from "accidentally propelling itself off the tooling assembly". B&W Tooling Engineers have placed "do not use" tags on all copies of the tool, and placed the tool in reject status to prohibit the tool from being issued to a production facility.