

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 20, 2013

**MEMO TO:** Steven Stokes, Technical Director  
**FROM:** Thomas Spatz, Pantex Site Representative  
**SUBJECT:** Pantex Plant Report for Week Ending December 20, 2013

### **Potential Inadequacy in the Documented Safety Analysis (PISA) for Tooling Concern:**

Babcock & Wilcox Technical Services Pantex, LLC (B&W) has paused operations on one weapon program when a spring-loaded handle, attached to a plate fixture, became disengaged from the plate securing it and flew several feet above the unit. (See report for 12/13/2013.) This week, B&W declared a PISA for this operational event. B&W Authorization Basis personnel determined that this event was not in the existing hazard analysis and could result in an unanalyzed mechanical impact to the unit. B&W Tooling Engineers are designing a tooling modification to prevent this event from recurring. B&W Authorization Basis personnel performed an Unreviewed Safety Question (USQ) evaluation and determined this was a negative USQ.

**Anomalous Unit Nuclear Explosive Safety Change Evaluation (NCE):** The National Nuclear Security Administration (NNSA) performed an NCE last week to approve transportation of the anomalous unit to and from a radiography facility, and to perform the radiography. Currently, the anomalous unit is in a work stand with plastic bags covering the unit. (See report for 3/15/2013.) The NCE team recommended that B&W perform radiological swipes of the available surfaces of the unit after removing the plastic bags, prior to transporting the unit to the radiography facility. B&W Authorization Basis personnel are preparing to send an authorization basis change package to the NNSA Production Office (NPO) to add this activity to the process.

**Nuclear Explosive Operations:** This week, the Site Representative observed nuclear explosive operations in two cell facilities. In one facility, the Production Technicians (PTs) loaded a physics package into an Enhanced Transportation Cart-2 (ETC-2) to be transported to a staging facility for further assembly at a later date. The Site Representative observed the PTs planning the material move in the Integrated Program Planning and Execution (IPRO) system. The PTs demonstrated expert knowledge of the nuclear explosive operation, two-person control, and the planning of the material move in IPRO. In the second facility, the PTs were starting an assembly operation of the physics package. The activities consisted of preparing the conventional high explosives for assembly. Once again the PTs demonstrated expert knowledge of the nuclear explosive operation and two-person control.

The Site Representative did observe something that does not demonstrate the best safety practice. The PTs are allowed to have several sets of keys secured to the lapels of their coveralls by alligator clips. At one point in the operation the PTs were performing steps to apply a part to the conventional high explosive with the keys hanging directly over the explosives. The Site representative has mentioned this observation to the appropriate B&W managers.