

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 8, 2018

**TO:** Steven A. Stokes, Technical Director  
**FROM:** Jason D. Anderson (Acting), Ramsey P. Arnold, and Zachery S. Beauvais,  
Resident Inspectors  
**SUBJECT:** Pantex Plant Activity Report for Week Ending June 8, 2018

**DNFSB Staff Activity:** J. Anderson provided resident inspector coverage throughout the week.

**Unreviewed Safety Question (USQ) Procedure Revision:** Last week, NPO transmitted a safety evaluation report (SER) to approve a revision to the CNS Pantex USQ procedure that will further align the Pantex and Y-12 National Security Complex (Y-12) USQ processes. CNS made changes including adding an allowance to utilize an expert USQ determination in lieu of the formal USQ determination where appropriate—a process currently approved at Y-12. The SER notes that the expert USQ determination process will allow CNS to spend less time on evaluating “activities that are simple and straightforward.” During the Pantex implementation period for this new expert process, CNS and NPO will conduct additional assessments to ensure it is being appropriately executed. Additionally, CNS will now utilize Safety Basis Supplements to allow for temporary revisions to the safety basis that have a limited duration. These supplements, also currently approved for use at Y-12, may modify a given control strategy for an operation and require NPO approval. In its approval memorandum, NPO identified two conditions of approval regarding operational restrictions (see 5/11/18 report) and discrepant as-found conditions that CNS will need to address prior to implementing the new procedure.

**Nuclear Explosive Operations:** CNS held a fact finding meeting regarding multiple special tooling and process failures during operations. In April, after a tool failed a vacuum leak check, process engineering developed a procedural change package to exchange the failed tool with a working copy. However, when the production technicians (PT) resumed the approved nuclear explosive operating procedure, trunnions used to hold the special tooling on the workstand locked-up, becoming unmovable. Process engineering developed a second procedural change to relieve the pressure on the trunnions in order to allow PTs to continue with the process. The fact finding meeting concluded that the first procedural change did not direct the PTs to raise the trunnions safely out of the way of the tooling before continuing the operation; a step not identified as missing during the procedure validation process. Additionally, the procedure validation for the second temporary procedure did not address a tooling malfunction issue observed during the validation, which then occurred during the actual execution of the operation. A nuclear explosive safety change evaluation will be required to complete processing the unit.

**Training and Qualification.** The acting resident inspector observed a CNS re-qualification oral board for a production section manager. This oral board in conjunction with a comprehensive written exam are the final steps in the candidate becoming re-qualified.