

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 6, 2017

**MEMO TO:** Steven Stokes, Technical Director  
**FROM:** Ramsey Arnold and Zachery Beauvais, Pantex Site Representatives  
**SUBJECT:** Pantex Plant Report for Week Ending January 6, 2017

**Dismantlement Operations Training:** The site representative observed CNS training activities related to the restart of dismantlement operations on a weapon program. CNS previously declared a positive unreviewed safety question and paused operations on the program due to the release of updated weapon response information that showed an increased sensitivity of components to insults (see 11/18/16 report). CNS is developing an updated safety basis and control set to prevent high order consequences and maintain worker safety. Process engineers are revising procedures to package sensitive components earlier in the operation to minimize operational hazards. In preparation for the restart of dismantlement operations, and due to the extended period of time since production technicians (PT) last executed dismantlement operations on this program (i.e., summer 2016), re-familiarization training was needed for PTs to remain qualified to execute operations. The training also allowed PTs to understand the proposed process changes and new controls due to the updated weapon response and pending safety basis changes. As part of the training, PTs demonstrated the updated operational workflow and worked with the weapon training specialist and process engineers to assure the updated nuclear explosive operating procedures and packaging procedures were well-developed and logical. Prior to restarting operations, CNS will develop a justification for continued operations with compensatory measures, and conduct the necessary readiness activities.

**Hoist Component Failure:** CNS held a causal analysis meeting to discuss the muffler retainer ring that fell from the hoist bridge during operations in a nuclear explosive bay (see 12/9/16 report). Although personnel cannot be certain of the cause, contributing factors could have included that the ring locking mechanism was manufactured incorrectly, damaged prior to or after installation, or assembled incorrectly during installation or maintenance. Meeting participants developed a preliminary set of corrective actions that include revising maintenance procedures to add a verification step to assure the ring locking mechanism is engaged, evaluating the current quality assurance procurement documentation, and evaluating whether the ring should be accepted through a commercial grade dedication process. The safety basis designates all hanging hoist components (e.g., the muffler retainer ring) and facility appurtenances as having a passive safety class design feature to withstand a Performance Category 3 seismic event without failure. The site representative discussed whether other components that hang in nuclear explosive facilities meet the appropriate quality assurance practices. CNS plans to evaluate this through their extent of condition review process.

**Documented Safety Analysis (DSA) Annual Updates:** NPO recently transmitted a letter to CNS regarding deficiencies in timeliness, configuration management, and scope of DSA annual updates. Title 10, Code of Federal Regulations, Part 830, Subpart B requires CNS to annually submit DSA updates for NPO approval or a letter stating that no changes have been made since the last update. NPO identified that several DSA annual updates exceeded the 12 month interval—e.g., the 2015 Sitewide Safety Analysis Report annual update remains unapproved due to insufficient technical documentation associated with changes, and several weapon DSAs exceeded 14 months since the last update. NPO requested that CNS provide an annual update schedule and determine if corrective actions are needed to prevent reoccurrence.