

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 24, 2018

TO: Christopher J. Roscetti, Technical Director
FROM: Ramsey P. Arnold and Zachery S. Beauvais, Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending August 24, 2018

DNFSB Staff Activity: D. Andersen attended portions of the special purpose facilities nuclear explosive safety (NES) master study.

Documented Safety Analysis (DSA) Compliance: Earlier this month, CNS withdrew the justification for continued operations (JCO) to address legacy issues with the DSA (see 7/6/18 report). CNS originally submitted the JCO to address safety basis compliance-related issues, including those identified by the DNFSB staff. The safety items include hazard scenarios with unscreened weapon responses for high order consequences that do not have an adequate control set to prevent the hazard (see 11/17/17 and 3/16/18 reports). Prior to submitting the JCO, CNS developed a set of controls to improve the compensatory measures currently in effect regarding the falling man protocol (see 5/11/18 report). A significant effort was made to develop the proposed controls; however, CNS has not implemented any additional falling man-related controls beyond the compensatory measures and operational restrictions in effect since February (see 2/23/18 report). Since submitting the JCO, CNS has met with NPO reviewers and received comments on the submitted JCO. Based on NPO comments, CNS withdrew the JCO and is evaluating resubmittal of the document as a safety basis supplement (SBS). CNS intends to meet with NPO to further discuss the SBS proposal prior to their transmittal of the next revision.

Nuclear Explosive Operations (NEO): Upon discovery of an acrid odor, production technicians initiated immediate action procedures during disassembly NEOs. CNS personnel responded to the facility and placed the unit in a safe and stable configuration. The resident inspectors observed an anomalous unit determination meeting where the unit was unanimously determined to not be anomalous because the condition was evaluated to have no potential adverse effect on NES.

NEO Authorizations: In June, NNSA completed the warhead measurement campaign (WMC) federal readiness assessment (FRA). The FRA de-scoped one of three weapon programs to allow CNS to address an open NES finding related to electrical isolation (see 6/15/18 and 6/29/18 reports). To disposition the NES finding, CNS completed additional analysis, implemented the use of the portable surge protector, and modified process-specific special tooling. Based on the closure of the NES finding and NPO approval of a related safety basis change, CNS proceeded with a contractor readiness assessment (CRA) for WMC operations on the remaining program. The CRA resulted in no findings and was shadowed by NPO. Given the satisfactory CRA results, NPO determined that a separate FRA was not warranted, and NPO authorized CNS to startup WMC operations for the remaining program. CNS has completed all measurement suites for one program, is nearing completion of measurement suites for a second program, and plans to start the measurement suites for the newly authorized program next week.

NPO also authorized the startup of Confined Large Optical Scintillator Screen Imaging System (CoLOSSIS II) operations. NPO validated the CNS closure packages related to the FRA findings and determined them to be satisfactory.