

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 22, 2017

MEMO TO: Steven Stokes, Technical Director
FROM: Ramsey Arnold and Zachery Beauvais, Pantex Plant Resident Inspectors
SUBJECT: Pantex Plant Report for Week Ending November 24, 2017

Safety Basis: CNS safety analysis engineering and NPO coordinated numerous changes to the safety basis, including the following items:

- CNS completed repairs in two nuclear facilities after light fixtures were found with degraded gaskets that had the potential to negate their seismic requirements (see 9/29/17 and 10/6/17 reports). Prior to the repairs, material moves were paused in the affected facilities and containers remained closed. CNS submitted, and NPO approved, an evaluation of the safety of the situation stating that the facilities have been restored to meet their seismic requirements and the operational restrictions have been lifted.
- NPO approved a change package to implement an in-service inspection to replace crane couplers on a two year frequency (see 2/10/17 and 2/24/17 reports). Once implemented, this will allow CNS to close the related justification for continued operations (JCO).
- NPO approved a JCO to address new weapon response information on one program (see 11/3/17). Based on the increased frequency of worker safety consequences, CNS implemented compensatory measures in the form of specific training for procedure adherence and the falling man awareness protocol.
- In October, CNS declared a positive unreviewed safety question after discovering that the current accident analysis for a particular scenario did not bound the total combustible load, including transportation trailers, during loading dock operations. NPO approved a JCO that implements compensatory measures to limit the number of transportation trailers at the dock, assuring that combustibles are below the evaluated threshold.

Combustible Control Implementation: CNS recently issued the results of a management self-assessment (MSA) of the combustibles specific administrative control. The MSA was performed by a team consisting of fire protections engineers, human factors engineers, and a process engineering manager. An NPO facility representative and the resident inspectors shadowed portions of the assessment. The team reviewed the causes and circumstances of prior combustible control violations, extending back nearly ten years, and interviewed personnel from various plant organizations with responsibility for combustible control implementation. The team found combustible control specifications were least reliable when they were inconsistent for different facility configurations or illogical to the personnel implementing the control. An example of this is a currently implemented control that requires a standoff between empty wooden pallets and nuclear material but does not require a similar standoff between wooden pallets with nuclear material containers staged on it. The assessment team's recommendations focused on removing unnecessary combustibles from operating areas, e.g., removing wooden pallets and combustible chairs; preventing new combustibles from being introduced during process changes; and implementing positive indications, via log book entries, that required combustible sweeps have been performed. Similar to prior MSAs of combustible controls (see 7/22/16 and 11/10/16 reports), the team encouraged CNS to extend combustible controls training to additional personnel and to submit a previously developed safety basis change package to NPO to implement streamlined combustible standoff distances. CNS management is evaluating how to address the recommendations.