

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 11, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: Zachery S. Beauvais, Resident Inspector
SUBJECT: Pantex Plant Activity Report for Week Ending January 11, 2019

DNFSB Staff Activity: T. Hunt augmented the resident inspector coverage by observing a production section manager oral board, evaluating blast valve maintenance, and reviewing a nuclear explosive safety (NES) change evaluation (NCE).

Facility Mode Change: To support a recent preventive maintenance activity (see 1/4/18 report), CNS impairment and restoration (I&R) technicians shut off water supply to the fire suppression system (FSS) in one nuclear explosive bay. The work also required a facility mode change, as defined in the plant technical safety requirements, from *Operation* to *Maintenance* mode. Following completion of the maintenance work, a CNS facility representative (FR) returned the facility to *Operation* mode without first verifying that the water supply to the FSS had been restored. *Operation* mode requires the FSS to be operable or for actions associated with the limiting condition for operations to be met. Production technicians (PT) and material handlers attempted to move a nuclear explosive from a nearby bay to the bay in question when they observed a posting stating that the FSS in the receiving bay was impaired. The PTs cancelled the move prior to introducing the unit to the receiving bay, returned the unit to the originating bay, and contacted the CNS FR. I&R technicians have now restored the water supply to the bay, and the CNS FR has returned it to *Operation* mode. The plant facility controls work authorization process requires the CNS FR to verify the “impairment post-job status,” prior to closing a work package. This section of the work authorization form was marked as not applicable. CNS has implemented a process to verify facility configuration and safety system status following more involved maintenance turnarounds, but it was not applicable to this activity.

NCEs: This week, NNSA conducted NCEs on two separate weapon programs. A NES study group (NESSG) evaluated a temporary procedure that directs PTs to re-perform an electrical test on a stuck pit tube valve then removes it using a special tool. The tool—angled pliers—will be used to stabilize the tube while manually removing the valve. The procedure provides a contingency step to have a PT standing by to immediately apply sealant if the tube is breached during the process. A NESSG performed a second NCE to authorize receipt of units in a different configuration. As a result of this change, PTs will no longer perform certain electrical tests on the units, but will still electronically verify the unit configuration. The NESSGs concluded that there are no NES concerns with either of the evaluated changes.

Authorizations: CNS initiated operations on a new weapons modification. NNSA recently performed an NCE to evaluate the new operations and determined that there were no NES concerns. NPO evaluated and approved a safety basis change package to authorize the new operations. The new operations are nearly identical to previously authorized operations on that program and do not require any additional safety controls. CNS and NPO determined that readiness assessments were not necessary to start the operations. Additionally, CNS began operations in the High Explosive Pressing Facility, a new non-nuclear facility in Zone 11. Construction was completed in March 2017.