

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 17, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: Miranda McCoy, Resident Inspector
SUBJECT: Pantex Plant Activity Report for Week Ending April 17, 2020

COVID-19: CNS completed transitioning to the containment phase of their Pantex COVID-19 response plan this week. In support of ongoing mission critical work, a high percentage of production technicians, as well as the majority of their first and second line supervisors, remain onsite to perform or support nuclear explosive operations. Much of this operational work involves person-to-person requirements that preclude the ability to adhere to social distancing guidelines; CNS has procured masks to be used by mission critical personnel on a voluntary basis.

Safety Basis: Last week, CNS safety analysis engineering (SAE) declared a potential inadequacy of the safety analysis (PISA) for an impact hazard for one weapon program. SAE analysts noticed errors in the accident analysis for the weapon program's hazard analysis report. The errors affected frequency calculations for three separate impact hazards for that weapon program. Two of the three impact hazards already had adequate controls in place to prevent the hazards; however, the third impact hazard was previously not further evaluated for controls, and therefore could not be demonstrated to be adequately controlled. SAE analysts declared a PISA for the uncontrolled impact hazard, and CNS management implemented an operational restriction to disallow use of the equipment that poses the inadequately controlled impact hazard for operations specified in that weapon program's hazard analysis report. This week, SAE analysts performed an unreviewed safety question determination on the information, and upgraded the PISA to a positive unreviewed safety question.

Operations: In February, a unit failed an electrical test, resulting in production technicians entering their immediate action procedures and the declaration of the unit as anomalous (see 2/14/20 report). NNSA subsequently convened a nuclear explosive safety (NES) change evaluation (NCE) for the re-performing of the failed electrical test (see 3/27/20 report). The NCE documented six deliberation topics—two of which were resolved immediately following the NCE, one of which reiterated the importance of positive verification per the current NES rules, and three of which NPO communicated to CNS for corrective actions. This week, NPO approved a revised evaluation of the safety of the situation (ESS) for the anomalous unit, and CNS subsequently lifted the operational pause for the unit. The ESS affirms that the current weapon response rules are still current and bounding for the anomalous unit. The re-test of the unit will be performed under a nuclear explosive engineering procedure that outlines one additional test of the unit.

NCEs: This week, NNSA conducted two NCEs. The NES study group (NESSG) for one NCE evaluated a change in a specific component in an electrical tester. The proposed change would allow replacing the component with one similar in fit, form, and function, but from a different manufacturer and with slightly different properties. A second NESSG evaluated a change in the use of code management system equipment.