DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 27, 2018

TO: Steven A. Stokes, Technical Director
FROM: Ramsey P. Arnold and Zachery S. Beauvais, Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending April 27, 2018

DNFSB Staff Activity: C. Berg attended B83 hands-on training and augmented the resident inspectors' coverage.

Special Tooling: Production technicians (PT) recently paused nuclear explosive assembly operations in a cell after encountering difficulty using the hand wheel on a copy of an assembly stand. This was discovered as part of their pre-operational inspection of the tool. The hand wheel raises and lowers the trunnions on the stand, an activity that is performed extensively throughout the operation. A new copy of the assembly stand was necessary to continue, however the defective stand could not be removed and the new stand could not be introduced with nuclear material and unpackaged high explosives in the facility. As a complicating factor, nuclear material and high explosives packaging operations are not normally conducted as part of assembly operations. Process engineering developed a temporary procedure to allow the PTs to repackage the sensitive items. The procedure was safely executed. The defective assembly stand will undergo its normal preventive maintenance before being returned to operations.

Specific Administrative Controls (SAC): NPO has begun conducting a series of independent assessments of individual SACs. The assessments are conducted to validate the effectiveness of CNS practices to implement SACs in accordance with DOE-STD-1186. This week, NPO communicated the results of their assessment of the ignition controls SAC, part of the overall fire protection program. The assessment concluded one finding against the CNS internal work instruction related to control owner roles and responsibilities. While the required periodic control assessment had been performed, it had not been completed by the control owner, as required per the work instruction. The assessment noted multiple performance problems, including two related to the human performance improvements assessment performed for this control. Overall, the assessment found that the nuclear explosive operating procedures appropriately included flow down documentation for the ignition controls that allow the control to be implemented at the floor level. NPO has requested that the contractor provide a corrective action plan to address the finding within 45 days.

Fire Pump: The performance of a weekly pump surveillance was delayed when water leakage from a diesel fire pump prevented technicians from performing a required measurement. The surveillance procedure requires technicians to perform various measurements of the diesel-driven fire pump rotational speed using a laser tachometer. The water leakage interfered with the measurement, preventing an accurate reading. During a second attempt, maintenance personnel were able to prevent the water from interfering with the measurement, and completed the surveillance in the allotted timeframe. Facilities management submitted a corrective work order to replace the pump packing glands prior to the next required surveillance.