DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 1, 2016

MEMO TO: Steven Stokes, Technical Director
FROM: Zachery Beauvais, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending April 1, 2016

Nuclear Explosive Operating Procedure (NEOP) Discrepancy: While performing mechanical disassembly on night shift, production technicians (PT) paused operations after discovering a discrepancy in the NEOP. PTs appropriately paused at a step requiring removal of a piece of special tooling, noting that the tool had been removed earlier in the operation, and contacted their section manager. A step to reinstall the tool was inadvertently removed from the NEOP when it was revised to require the use of a pass-through adapter cable during certain electrical tests. This requirement was a compensatory measure to release operations following a pause stemming from discovery of two anomalous units (see 10/23/2015 and 11/13/2015 reports). Consolidated Nuclear Security, LLC (CNS), conducted, and the site representative attended, a critique on the event. The NEOP was executed multiple times prior to the discovery of the discrepancy. A PT who had previously executed the NEOP, but was not part of the crew that paused operations, stated that he had noticed the discrepancy and should have asked the process engineer for clarification but had failed to do so. During the critique, a representative from NPO noted that the discrepancy was present in three separate revisions of the NEOP. An extent of condition performed by CNS Process Engineering did not discover the issue in other NEOPs revised to include the compensatory measure. The event was reported in the DOE Occurrence Reporting and Processing System as a management concern.

Physics Package Disassembly: Last week, CNS encountered a second unit where PTs could not remove a significant component from a charge subassembly (see 3/18/2016 report). The condition was discovered at the same procedural step and involved a second unit on the same mod of the same weapon program. CNS updated a previous request for weapon response to address the second unit, so that the same Nuclear Explosive Engineering Procedure (NEEP) could be used to disassemble both units. The cognizant design agency provided an information engineering release stating that the existing weapon response is bounding. The NEEP directs the use of an extraction tool which applies vacuum and air pressure to secure the significant component while jackscrews are used to apply a separation force. This week, the site representative observed PTs successfully execute the NEEP. The site representative notes the extraction tool allowed for safe, controlled removal of the stuck component and is preferable to manually intensive means for removal. CNS Production and Manufacturing Engineering intends to revise the normal process to include the use of the extraction tool as a credible deviation.

Emergency Drill and Exercise Committee: CNS Pantex Emergency Services Personnel conducted, and the site representative observed, the first meeting of the Pantex Drill and Exercise Committee (PDEC). The PDEC is intended to be a vehicle to involve plant subject matter experts across various organizations in the planning, coordination, conduct and evaluation of emergency drills and exercises. The PDEC membership consists of representatives from several departments including Emergency Services, Mission Engineering, Facilities, and Manufacturing as well as the NNSA Production Office. Representatives from various state and local agencies are invited to participate in certain functions. Each committee member will be required to qualify as a drill and exercise controller/evaluator and required to have the authority to speak for his or her representative department.