

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 23, 2015

MEMO TO: Steven Stokes, Technical Director
FROM: Zachery Beauvais, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending October 23, 2015

DNFSB Staff Activity: B. Caleca was onsite to augment the Board's site coverage.

Recovery of Nuclear Explosive Operations: The Consolidated Nuclear Security, LLC (CNS), Pantex Plant Manager has now authorized resumption of nuclear explosive operations for all but two remaining weapon programs. This week, production technicians resumed operations in nuclear explosive bays.

Anomalous Units (AU): On October 19, 2015, the NNSA Production Office (NPO) issued a Safety Evaluation Report approving the Justification for Continued Operations (JCO) for further testing of two AUs that had out-of-tolerance readings on Detonator Cable Assembly (DCA) resistance tests (see 4/17/2015 and 9/18/2015 reports). On October 20, the CNS Nuclear & Explosive Surety Department (NESD) Manager issued a memo which paused disassembly operations requiring this test. These operations have not yet been authorized to resume following the August 28 work stoppage. The NESD manager issued this memo to address a concern that the potential for hazards encountered during testing of the AUs may be present while performing this test on other units with similar DCAs. This memo states that technical information gathered through testing the AUs will allow CNS to determine the safety of performing this test on other units. On October 22, a NESSG convened to conduct a NES Change Evaluation (NCE) of the process proposed to test the AUs. The site representative observed portions of this NCE. Per the Nuclear Explosive Engineering Procedure, CNS plans to sequentially test the DCA at a series of resistance values. During the NCE, the NESSG members agreed that sufficient measures will be in place to ensure nuclear explosive safety during the additional testing steps.

Fire Suppression System: On October 13, 2015, Special Mechanic Inspectors noticed leakage from a gasket while performing system restoration on the safety class fire suppression system. Upon inspection of the gasket, the SMIs observed damage that suggested it had been partly crushed. Using an open work order for the maintenance activity, the SMIs began to replace the gasket. In February, CNS issued a standing order to require additional inspections of safety related items to ensure that they meet Commercial Grade Dedication (CGD) requirements (see 2/13/2015 report). Prior to returning the system to service, the system engineer identified that the gasket had not undergone the tests specified by the standing order. Following this event, CNS suspended the use of those open work orders which allow replacement of parts in the field without a facility-specific work package. CNS is currently performing an extent of condition review to determine if additional parts had been installed in safety related systems without the CGD testing required per the standing order. Additionally, CNS plans to conduct further training on the provisions of the standing order.

On October 19, an ultraviolet detector in a nuclear explosive bay failed an optical integrity continuity test performed as part of an annual preventive maintenance. In April, a detector in the same facility failed a similar test. CNS Fire Protection Engineers are determining if other similarities exist between the two events that would suggest an underlying technical cause.