

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 5, 2015

MEMO TO: Steven Stokes, Technical Director

FROM: Ramsey Arnold and Zachery Beauvais, Acting Pantex Site Representatives

SUBJECT: Pantex Plant Report for Week Ending June 5, 2015

Staff On-site: This week, Board staff members T. Hunt and J. Mercier, and outside expert D. Boyd were on-site to conduct a review of the Pantex Plant (Pantex) maintenance program. Also, E. Gibson was on-site to observe a kickoff meeting for developing the plan for the Pantex Probabilistic Seismic Hazard Analysis update which includes a site investigation program.

Code Blue Update: Last week, CNS submitted two separate Justifications for Continued Operation (JCO) to the NNSA Production Office (NPO) to resume operations on two weapon programs (see reports for 5/8/15 and 5/29/15). The JCOs include compensatory measures, primarily consisting of administrative controls, to mitigate new electrostatic discharge (ESD) hazard scenarios associated with Army-Navy (AN) containers and aerosol cans. The compensatory measures necessary for safe packaging of energetic components in AN containers include additional equipment bonding steps, application of copper tape to sanded areas of exposed metal on container surfaces, and additional stand-off zones. The compensatory measures for the aerosol can ESD scenarios were less extensive and included application of copper tape from the uncoated bottom of the aerosol can to the top of the can. The compensatory measures for the AN containers and aerosol spray cans were included in revisions to existing JCOs originally developed for other ESD hazard scenarios including the kneeling man hazard (see reports for 9/26/14 and 10/3/14), which also effectively extends the original JCO. On June 1, 2015, NPO issued two Safety Evaluation Reports which expire on December 31, 2015, approving the JCOs with no conditions of approval.

On June 2–3, 2015, the NNSA Nuclear Explosive Safety (NES) Division convened two separate NES Change Evaluations (NCE) to evaluate the proposed changes to the nuclear explosive operations for the two affected weapon programs. The NES Study Groups (NESSG) completed the NCEs, documenting no findings, and determined the DOE NES standards and other NES criteria have been met. Although not a NES concern, the NESSG identified that the utility cart proposed for use in AN container packaging for one program does not have locking wheels or other positive securing mechanism, in violation of an explosive safety requirement. The acting site representative and an additional member of the Board's staff observed each NCE. On June 4, 2015, the NPO Assistant Manager for Nuclear Safety and Engineering approved the NCEs. Prior to resuming operations, CNS will pursue a change that provides locking casters on the utility cart and complete training and implementation verification reviews.

Fire Protection Testing: On April 2, 2015, based on concerns raised by Board staff members, NPO issued a letter to CNS requesting they provide a test plan and schedule to verify that no latent undetected failure modes exist in the Det-Tronics flame detectors, part of the safety-class deluge fire suppression system installed in nuclear explosive bays and cells. CNS developed a test procedure, and this week, CNS special mechanic inspectors executed several work orders to test the Det-Tronics flame detectors for latent undetected failure modes. Board staff members observed the first execution of this new maintenance procedure. CNS did not detect any additional failure modes during tests completed so far. CNS plans to test all affected facilities within the next year.