

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 16, 2017

MEMO TO: Steven Stokes, Technical Director
FROM: Ramsey Arnold and Zachery Beauvais
SUBJECT: Pantex Plant Report for Week Ending June 16, 2017

Emergency Drill: The CNS emergency management department held a drill simulating the emergency response organization's (ERO) response to a seismic event resulting in a dropped pit, personnel injuries, and a delayed hazardous chemical release. The resident inspectors observed the plant shift superintendent (PSS) and ERO executive team response to the drill scenario. Although ERO members and the PSS had individually trained to newly released emergency action levels (EAL), revised as part of the ongoing response to DNFSB Recommendation 2015-1, *Emergency Preparedness and Response at the Pantex Plant*, this represents the first full ERO drill where PSS personnel used the new EALs to categorize and classify an emergency event. The response showed the continued use of additional technology resources for sharing response information. The participants offered constructive feedback during the hotwash following the drill, including questions on existing plant processes and capabilities for packaging pits that have been involved in emergency events.

Command Disablement (CD): Following a declaration of readiness by the site manager, CNS kicked off their contractor readiness assessment (CRA) of an upcoming CD function test and subsequent disassembly and inspection of the tested unit. PTs have performed these operations multiple times in the past, most recently in 2010. The design of the tester used to perform the CD has been modified since its last execution to substitute the use of alternating current power with a direct current battery power supply. This removes the need for penetrations through the facility Faraday cage that had been required in previous tests. The CRA follows a readiness verification (RV) review completed in May 2016. Since the time of the readiness verification, the plans for the test changed to direct its execution in a nuclear explosive cell; previously, the test was planned for execution in a bay. The CRA will evaluate all applicable plantwide safety management programs, and include all readiness core requirements, except for that related to facility modifications. The CRA will continue with process demonstrations next week. An NNSA readiness assessment will be required to authorize operations.

Electrical Test: NNSA convened a nuclear explosive safety (NES) study group (NESSG) to perform a NES change evaluation (NCE) of proposed process changes to resume electrical testing of mechanical safe and arm detonators (MSAD) on a unit, previously declared anomalous (see 6/2/17 and 6/9/17 reports). During the NCE, the project team also proposed that the NESSG evaluate changes to the normally performed nuclear explosive operating procedure to allow all testing to be performed sequentially, without the need to enter immediate action procedures (IAP) in the event of a test reading outside normal tolerances. The NESSG concluded the proposed operations do not pose a concern for NES. In their review, the NESSG identified four deliberation topics, including NESSG approval of the uninterrupted, sequential testing; removal of entry into IAPs; and the recommendation that CNS NES shall evaluate any future similar scenarios to ensure the process is bounded by this NCE. Upon NPO approval of the NCE, and just over two weeks after the unit was declared anomalous, CNS PTs resumed operations on the unit and executed the additional testing. The electrical testing showed that the MSAD was in a safe configuration and normal operations could continue.