

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 2, 2016

**MEMO TO:** Steven Stokes, Technical Director  
**FROM:** Ramsey Arnold and Zachery Beauvais, Pantex Site Representatives  
**SUBJECT:** Pantex Plant Report for Week Ending December 2, 2016

**Emergency Exercise:** Pantex conducted a tabletop exercise that was designed to test their response to multiple incidents around the plant perimeter and allow participants to discuss and understand the capabilities of each organization involved in the response. The primary event exercised by the participants involved an overturned safeguards transport trailer during an Office of Secure Transportation (OST) shipment as it arrived to the plant. The exercise scenario assumed that no release occurred, although participants appropriately discussed the possibility for material release and the associated actions if one occurred. Participants included all Pantex organizations involved in the emergency response organization from NPO and CNS. In addition, outside organizations including OST, Texas Department of Public Safety, Carson County Sheriff Department, and the Federal Bureau of Investigation participated. This was the first joint emergency exercise between OST and Pantex in recent history.

**Tester Safety:** Pantex recently paused all operations involving three separate pieces of electrical test equipment following concerns with the ability of the equipment to meet electrical grounding requirements (see 11/18/16 report). Since the pause, Pantex has resumed all related tester operations. For one piece of equipment—a switchbox—tester design personnel developed and completed a test plan on each copy to determine if the switchbox is properly grounded prior to releasing it for production use. For the other two testers, engineering personnel performed a calculation and related test to determine the electrical properties of the non-metallic tester cases. CNS found that the tester properties were bounded by existing, screened weapon responses; therefore, the testers were acceptable for use without making design changes to the tester boxes.

**Technical Safety Requirement Violation:** Production technicians (PT) in a nuclear explosive bay discovered the inner door to the equipment interlock to be ajar, in violation of a specific administrative control within the fire protection program. The PTs corrected the condition and their section manager made the appropriate notifications. During swing shift, the evening prior to the discovery, maintenance personnel performed a monthly functional test of the blast door interlocks (BDI) in the facility. Execution of this procedure requires the maintenance personnel to open the equipment interlock door. Radiation safety technicians also entered the bay to replace the filter on the continuous air monitors, an activity that does not normally require opening the equipment interlock doors, after completion of the BDI maintenance but prior to discovery of the condition. CNS plans to hold a critique on this event next week.

**Nuclear Explosive Operations:** PTs began physics package disassembly and inspection operations, for one program, in a nuclear explosive cell using a recently updated process (see 10/14/2016 report). PTs were unable to remove wedge wires used to attach a support component to the physics package case using the authorized process. Process engineering reissued a previously developed nuclear explosive engineering procedure (NEEP) directing PTs to use an awl, plastic hammer, and pliers to peel back the support component as needed to remove the wedge-wires. PTs successfully executed the NEEP. During subsequent operations, the PTs provided feedback to process engineering on tooling configurations and displayed knowledge of facility safety requirements during discussion with the site representatives.