

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 17, 2015

TO: S. A. Stokes, Technical Director
FROM: Jason Anderson, Acting Pantex Plant Site Representative
SUBJECT: Pantex Plant Weekly Report for Week Ending April 17, 2015

Clothing Contamination Event: On April 14, 2015, Consolidated Nuclear Security, LLC (CNS) held an event critique concerning a clothing contamination, which occurred between April 10 and 14, 2015. On April 10, 2015, during consolidation of scrap parts in a warehouse containing both legacy explosives and legacy nuclear material, a Production Material Stores Handler received loose contamination on portions of his clothing. Several components have been awaiting disposal evaluation since the conclusion of a larger weapons campaign disposal effort that ended in 1992. The component being moved was wrapped in a single layer of degraded bubble-wrap plastic with paper tape sealing the bubble-wrap. The Material Handler was transferring the component, which is heavy and unwieldy, from a bin to a pallet when it slipped and rubbed against his coveralls. At the conclusion of the shift, the Material Handler left his gloves in the Radioactive Material Area (RMA) but wore the coveralls to the change-house and placed them in his locker where they remained until Monday, April 13th. On Monday, when operations were preparing to resume, an Inventory Control Specialist noted that the packaging was torn and contacted Radiation Safety. Radiation Safety Technicians surveyed the locker and surrounding areas, the coveralls, the laundry bin, and associated items. The only items that were contaminated were the coveralls and the Material Handler's gloves. Although the gloves had remained in the RMA until surveyed by Radiation Safety personnel; the coveralls had left the RMA and were retrieved from the laundry bin. On April 14, 2015, Radiation Safety established a contamination area containing the components, the area was appropriately controlled, and the components were repackaged in double plastic bags and canned. This handling operation is governed by a general use procedure, which requires the Material Handler to not enter the storage bin if packaging is damaged nor handle any components if the appropriate radiation tag is not present, pending a Radiation Safety assessment. In this event, this section of the general use procedure was not followed.

Anomalous Unit Determination: On April 12, 2015, Production Technicians (PTs) suspended a nuclear explosive disassembly operation and placed the unit in a safe and stable configuration, after observing an out-of-tolerance measurement on a detonator cable assembly (DCA). A Tester Design Engineer responded to the facility and performed a visual inspection. The PTs then disconnected the tester, and the engineer repeated the tester checks done by the PTs at the beginning of the operation. CNS then sent an Information Engineering Release to notify the Design Agency of the out-of-tolerance measurement. Representatives from CNS process engineering, CNS nuclear explosive safety, and the Design Agency determined on April 16, 2015, that the nuclear explosive configuration meets anomalous unit criteria (i.e., conditions or damages potentially affecting nuclear explosive safety and/or resulting in an unanalyzed configuration). An Anomalous Unit Ad Hoc Project Team will be assembled to establish a path forward for this unit, including the drafting of a Nuclear Explosive Engineering Procedure.