

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 27, 2014

MEMO TO: Steven Stokes, Technical Director
FROM: Thomas Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending June 27, 2014

DNFSB Staff on Site: T. Hunt was at the Pantex Plant this week to provide site representative support.

Technical Safety Requirement (TSR) Violation: Babcock & Wilcox Technical Services Pantex, LLC (B&W) declared a TSR violation when maintenance personnel left the inner equipment interlock doors open while performing hoist surveillance activities when there was a unit in the facility. The combustible control TSR requires that the inner interlock doors remain closed except when personnel are entering, exiting, or present in the interlock. The DNFSB staff observing the maintenance operation noticed the interlock doors were open and notified the maintenance personnel that the doors needed to be closed and they closed the doors. The work order used by the maintenance personnel does not mention the need to keep these doors closed, however it is mentioned in the general work instruction, *Conduct Maintenance Compliant with Technical Safety Requirement Controls*.

Nuclear Explosive Safety Concern with Use of an Unauthorized Tool: B&W discovered that a tool that should have been tagged out with a "Do Not Use" tag had been used in nuclear explosive operations on two units. A couple of weeks ago, B&W production technicians (PTs) had difficulty removing a lifting and rotating fixture from a unit. Tooling engineers wrote an Engineering Evaluation (EE) that gave information on how to remove the lifting and rotating fixture from the unit, tag out the lifting and rotating fixture and the lifting adapter, and return the two pieces to the tooling warehouse. The process engineers wrote a Nuclear Explosive Engineering Procedure (NEEP) to remove the unit from the lifting and rotating fixture, but did not give specific instructions to tag out either the lifting and rotating fixture or the lifting adapter. The process engineer did not send the NEEP back to the tooling engineer for review to ensure that the requirements in the EE were incorporated into the NEEP. The PTs tagged out the lifting and rotating fixture and removed it from the facility. The PTs, however, did not tag out the lifting adapter since it was not known to be degraded, but instead placed it into the equipment interlock. The PTs used the lifting adapter on two subsequent units. The use of the lifting adapter that had been identified in the EE to be removed from service resulted in a nuclear explosive safety concern related to the use of unauthorized tooling.

Pause of Nuclear Explosive Operation: A PT bumped into the quick disconnect vacuum fixture on the work stand and broke it while a high explosive component was being suspended by a vacuum fixture during a nuclear explosive operation. The check valve on the vacuum fixture maintained vacuum on the component while the PTs lowered the explosive back onto the unit to establish a safe and stable configuration. The credited safety-class catch arms were in place in the event of a loss of vacuum. B&W is preparing an EE and a NEEP to use the vacuum line from the facility wall quick disconnect directly to the vacuum fixture (bypassing the work stand) to complete the disassembly operation on this unit. B&W plans to return the work stand to the tooling warehouse for repair once this unit is completed.