

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 24, 2014

**MEMO TO:** Steven Stokes, Technical Director  
**FROM:** Thomas Spatz, Pantex Site Representative  
**SUBJECT:** Pantex Plant Report for Week Ending October 24, 2014

**DNFSB Staff on Site:** R. Arnold was at Pantex this week to observe a Nuclear Explosive Safety training class on electrical test equipment.

**Equipment Blast Door Seal Event:** Consolidated Nuclear Security, LLC (CNS) Production Technicians (PTs) identified a problem with the outer blast door interlock seal assembly while performing the pre-operation check. The seal assembly is a pneumatic-driven plate that is lowered to the floor when the door is closed. The PTs observed that one side of the plate was binding, resulting in difficulty raising the seal assembly and opening the door. The PTs closed and sealed the door, placed the material in a safe and stable configuration, and notified the CNS Facility Representative (FR) of the problem. Even though both blast doors were sealed, the FR placed the facility into the Limiting Conditions for Operation (LCO), implemented the administrative control to assure that at least one blast door remains closed, and placed the facility into maintenance mode.

The LCO, *Equipment Blast Door Interlock System*, contains an exception to a generic LCO related to changing the mode of a facility. The generic LCO states that the facility mode cannot be changed until all the LCOs that apply to that mode are met. The exception in the *Equipment Blast Door Interlock System* LCO allows the facility mode to be changed from maintenance to operational by continuing the administrative control to assure that one blast door remains closed and sealed at all times. There are no additional controls applied when the facility mode is changed from maintenance to operational, even if one of the two blast door interlock systems does not meet its safety function. As permitted by this exception, there were three occasions over the weekend where the facility was placed into operational mode to perform nuclear explosive operations. On Monday, CNS crafts personnel lubricated and adjusted the seal assembly, and the FR removed the LCO.

**Pause in Operations Due to a Process Anomaly:** CNS PTs paused operations in one facility when they noticed a newly designed tool causing damage to a case part during a disassembly and inspection operation. The PTs placed the material in a safe and stable configuration and made the appropriate notifications. The tool was recently authorized for use and this was the third operation that incorporated the tool in the disassembly process. CNS designed this tool to replace a skill-of-the-craft technique that involved holding the component with pliers and tapping on the pliers with a small mallet to remove the component. The new tool simply pulls the component out, but it applies a torque to the weapon assembly held in place by a vacuum fixture. The PTs noticed that the assembly rotated in the vacuum fixture during this disassembly. The Site Representative entered the facility to observe the anomaly while the Design Agency personnel were there assessing the damage to the component and evaluating the path forward. CNS and the Design Agency are evaluating the path forward for this anomaly and possible improvements to the new tool.