

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 28, 2014

MEMO TO: Steven Stokes, Technical Director
FROM: Thomas Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending November 28, 2014

Pause in Operations due to Tooling Failure: Consolidated Nuclear Security, LLC (CNS) paused operations on one program due to a work stand failure. Production Technicians (PTs) were performing training on a Joint Test Assembly (JTA) unit in the training bay. One of the PTs noticed that when he turned the crank handle on the work stand the resistance was different than he expected. When the PT let go of the crank handle, the handle started to spin freely as the trunnions holding the JTA unit descended in the work stand. The PTs notified the acting Training Manager and Tooling Machine Design personnel, who in turn notified the Manufacturing Division Manager. The Manufacturing Division Manager paused all operations utilizing this work stand.

The drive mechanism in the work stand contains a clutch to prevent uncontrolled movement of the load being supported. The functional requirement of the work stand states that it shall be designed to carry anticipated loads with a prescribed factor of safety. Tooling Machine Design personnel are performing an evaluation of the work stand. Four days after the event, CNS entered the failure of the work stand into their authorization basis new information system.

Failure to Perform Hoist In-Service Inspection (ISI): The NNSA Production Office (NPO) has been performing an assessment of the Bays and Cells Safety Analysis Report, and forwarded a question to CNS regarding the flow down of crane inspection requirements. While answering the question, CNS discovered that they had not been performing an ISI on a hoist in one nuclear explosive operating facility. The ISI that had not been performed for several years for this hoist assembly is an annual requirement to disassemble and inspect the brake pad thickness. This ISI flowed down from the manufacturer's requirements for this hoist. CNS has been performing the annual load and brake tests on this hoist. Other hoist manufacturers only require the brake pad thickness measurement if the hoist fails the load and brake tests. There is only one hoist in use at Pantex with the ISI requirement to disassemble and measure the brake pad annually. CNS locked and tagged the hoist.

At the event critique, CNS management stated that they do not consider it a Technical Safety Requirement (TSR) violation when an ISI is not performed. In accordance with the approved TSRs, CNS only considers failure to perform a "surveillance requirement" a TSR violation. There are many safety-class structures, systems, and components that have both surveillance requirements and ISIs, such as the deluge fire suppression system. There are many (>50) safety-class design features that only have ISIs. For example, all facility structures, qualified containers, and enhanced transportation carts are considered design features and only contain ISIs.

CNS is performing an extent of condition review of all hoist requirements, as well as a timeline of when this particular hoist was procured and put into service. CNS categorized the event as a management concern, significance category 2, in the Occurrence Reporting and Processing system.

