

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 5, 2014

MEMO TO: Steven Stokes, Technical Director
FROM: Thomas Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending December 5, 2014

DNFSB Staff on Site: R. Arnold, T. Chapman, J. Deplitch, M. Helfrich were at the Pantex Plant this week to perform an on-site review of Pantex emergency preparedness and response.

Additional Categorization of the Failure to Perform Hoist In-Service Inspection (ISI):

Consolidated Nuclear Security, LLC (CNS) added a second categorization to the Occurrence Reporting and Processing system report of the failure to perform an ISI on a safety-class hoist. (See report for 11/28/2014.) CNS also categorized the event as a violation or nonconformance of a credited hazard control, significance category 3. The original categorization as a management concern, significance category 2, is still in place. The ISI had not been performed at the time of this report, and the hoist remains locked out.

Pause in Operations due to Tooling Failure Update: CNS identified the Sprag clutch in the work stand drive mechanism as the component that failed. (See report for 11/28/2014.) CNS has sent the clutch to the manufacturer to determine the cause of the failure. CNS will perform an engineering evaluation once they receive the results from the manufacturer.

CNS considers the entire work stand as one safety-class design feature. As a result, there is no functional requirement for the clutch alone, only the general functional requirement that the entire work stand shall be designed to carry anticipated loads with a prescribed factor of safety. CNS requires two in-service inspections (ISIs) for the work stand; one related to the load bearing components and one related to electrical isolation. The ISI for load bearing components states that load bearing components are inspected for signs of degradation or wear. The Tooling and Machine Design department support data sheet for this work stand contains an annual preventive maintenance related to the load bearing ISI. The preventive maintenance consists of removing the Sprag clutch, inspecting the housing for signs of damage, and applying grease to the clutch per the manufacturer's specifications. The clutch is never disassembled and inspected for signs of wear, and the work stand is only load tested following initial fabrication, modification or repair.

Pause in Operations: CNS paused operations in one facility due to an alignment issue with a lifting and rotating fixture. When production technicians began removing a unit from its shipping container, they noticed that the unit twisted slightly and paused the operation. CNS safety analysis engineering, nuclear and explosive safety, and process engineering personnel confirmed that the facility was in a safe and stable configuration. CNS process engineering is preparing a nuclear explosive engineering procedure to remove the lifting and rotating fixture and replace it with another copy.

High Pressure Fire Loop (HPFL) Lead -in Replacement Update: CNS has begun construction activities associated with the HPFL lead-in replacement for three bay facilities. CNS anticipates this lead-in replacement project to be completed by the end of March 2015. There are three other HPFL lead-in projects in various stages of planning. The current construction activity requires the corridor in front of three bay facilities to be barricaded.