

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 3, 2017

MEMO TO: Steven Stokes, Technical Director
FROM: Ramsey Arnold and Zachery Beauvais, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending February 3, 2017

Falling Hoist Components: CNS has developed a recovery plan for methodically completing actions necessary to release facilities for nuclear explosive operations and address safety concerns related to the coupler chain that broke and fell from a hoist last week (see 1/27/2017 report). The event was initially reported as a DSA non-compliance and was subsequently re-categorized as a potential inadequacy of the safety analysis (PISA) following determination that the safety basis lacked an in-service inspection (ISI) requirement for the coupler chain. A prior event occurred in December 2016 where a muffler ring fell from a hoist (see 12/15/2016 report). Potential additional hazards from other components were not included in the scope of the PISA but are being addressed within the ongoing extent of condition review. At the time of this report, operations in all affected facilities remain paused. Pantex personnel completed walkdowns for all nuclear explosive facilities with pneumatic hoists to confirm hoist components and other ceiling-mounted appurtenances were in a safe configuration. When facility configurations allowed the use of lifts to manually inspect elevated equipment, walkdowns included hands-on confirmatory inspections of all elevated facility equipment that could potentially fall, including confirmation that crane couplers were intact and that filter housing mufflers were properly installed. There were multiple instances where personnel performing walkdowns retightened loose muffler rings. When facility configurations prevented the use of lifts, visual inspections were completed from the facility floor. Pantex personnel completed additional walkdowns to confirm that all light fixtures were properly locked in place – CNS engineering determined that these were the only additional appurtenances that could potentially fall due to prior incorrect installation or maintenance. A series of engineering evaluations are being developed to document how all hanging components are safe including hoist muffler rings, coupler chains, and ceiling mounted appurtenances. CNS plans to replace all coupler chains in affected facilities prior to restoring full facility hoist usage.

Special Tooling ISI: Last week, NPO transmitted a letter to CNS requesting CNS justify their current practice that permits special tooling ISIs to expire while tooling is in-use without an NPO-approved extension request. The Technical Safety Requirements specify that if an ISI cannot be completed prior to expiration, an extension request with applicable technical justification must be submitted to NPO. The site representatives informed NPO and CNS of this potential gap following the processing of an anomalous unit, where ISIs had expired while the tooling was in use (see 9/30/2016 report). The potential for ISIs to expire while special tooling is in-use often exists when an anomaly requiring additional analysis or weapon response is encountered during nuclear explosive operations.

NPO Correspondence: NPO recently rejected several corrective action plans (CAP) and issue closure proposals that CNS submitted to NPO in response to various issues. NPO directed CNS to revise submittals including the cognizant system engineering program assessment CAP, the closure package of a 2013 nuclear explosive safety (NES) master study (MS) post-start finding that was originally identified by a 2006 NES MS, the closure package of various NES study deliberation topics, and the CAP for a recent approved equipment program assessment (see 10/7/2016 report). CNS is working to revise the documents for resubmission to NPO.