

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 22, 2014

MEMO TO: Steven Stokes, Technical Director
FROM: Thomas Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending August 22, 2014

DNFSB Board and Staff on Site: Chairman Dr. Peter Winokur, Vice Chairman Jessie Roberson, Board Member Sean Sullivan, and staff members T. Dwyer, R. Arnold, and C. Blaine were at the Pantex Plant for the Board's annual visit.

Tooling Malfunction: During tooling demonstrations to the Board and staff, a tooling malfunction resulted in the drop of a mock pit onto mock high explosives. Consolidated Nuclear Security, LLC (CNS) tooling engineers and weapon training specialists were demonstrating the positions of the pit transfer plate for which falling man analyses are performed. There was no requirement for the demonstration to be done in accordance with the nuclear explosive operating procedure (NEOP). The pit transfer plate fixture uses vacuum to support the pit and engage the safety catch arms. The engineers performing the demonstration did not apply the vacuum in accordance with the NEOP during the demonstration, and the pit fell out of the fixture. CNS and NNSA Production Office (NPO) management paused operations using this fixture. The daily event report issued by the operations center did not report the event or a pause of operations with this fixture, however operations were in fact paused. CNS held a casual analysis/mistake-proofing to review the NEOP and the fixture. CNS determined that this event could not occur during nuclear explosive operations where the NEOP is required and followed. The NEOP contains critical steps to verify that the vacuum is applied and that the vacuum check valve is functioning properly. CNS resumed operations with the pit transfer plate.

Potential Inadequacy of the Safety Analysis (PISA): CNS declared a PISA on the documented safety analysis evaluation of the Sylgard™ pump for impact and toppling of the pump due to a seismic or falling man event. CNS discovered that the pump was being used in the transportable configuration which is not the configuration supported by the tooling analysis. CNS declared the PISA when further analysis revealed that the pump will not meet the functional requirement in the transportable configuration. CNS is preparing an evaluation of the safety of the situation.

High Pressure Fire Loop (HPFL) Lead-in Update: This week, the Site Representative walked down a facility with a preexisting HPFL lead-in leak and the adjacent facility. (See report for 6/20/2014.) The facility with the lead-in failure is in maintenance mode and is completely empty. The adjacent facility was performing non-nuclear operations. CNS is planning to perform horizontal directional drilling under both facilities when they repair the leak in April 2015. Due to the original leak, some of the Teranap covering and dirt overburden had washed away from the facility with the lead-in leak. CNS performed an engineering evaluation of the change to the structure on the adjacent facility and determined that there are no impacts to the structure design feature and nuclear explosive operations may resume. CNS will transition the adjacent facility over to nuclear explosive operations upon completion of the ongoing non-nuclear activities.