

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 28, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Mark Bradisse and Christopher Berg, Acting Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending May 28, 2021

DNFSB Staff Activity: M. Bradisse and C. Berg provided on-site coverage of a nuclear explosive safety (NES) change evaluation for the W88 Alt 940.

Safety Basis: On Wednesday, CNS safety analysis engineering (SAE) personnel declared a potential inadequacy of the safety analysis (PISA) related to a tooling weight discrepancy for a certain weapon program. Specifically, they noted a discrepancy of a few hundred pounds between the values cited in the tooling analysis and hazard analysis report. The value listed in the hazard analysis report was non-conservative. On Thursday, they determined that this situation represented an unreviewed safety question (USQ) due to an increase in consequence for some accident scenarios. However, CNS concluded those scenarios already had adequate controls in place, and therefore did not institute any operational restrictions.

CNS SAE personnel declared a PISA for a different weapon program related to unevaluated impact hazards resulting from special tooling drops during removal and installation onto the workstand. Typically, technicians utilize a cart to facilitate these operations; however, a procedural appendix permitted installation and removal of the special tooling by hand. As an operational restriction, CNS prohibited the removal and installation of the tooling by hand.

Earlier this month, CNS SAE personnel declared a PISA for a different weapon program related to several unevaluated impact hazard scenarios associated with two carts (see 5/21/21 report). On Monday, they determined the situation did not represent a USQ.

Facility Structure: During an in-service inspection of the structure for certain bays, interlocks, and corridors, system engineering identified chipped concrete at the ceiling-wall intersection in one corridor (see 5/14/21 report). CNS has since removed the chipped concrete and inspected the surrounding area, identifying no further degradation or signs of recent water intrusion.

Unauthorized Electrical Equipment: In March, an NPO facility representative (FR) discovered an unauthorized calculator in a nuclear explosive facility. While the FR found the calculator in a location approved for combustible storage, and approved calculators are allowed in this facility, neither this particular make and model nor this specific item had been analyzed or authorized. It was not clear how long the calculator had been in the facility, or whether it had been in the storage location for the duration. Upon discovering the item, the FR informed production technicians that it had to be removed from the facility. Once removed, the responsible manager notified CNS SAE of the incident to determine if a violation occurred. However, CNS NES was not informed at this time. The incident was reported in NPO's Operational Awareness Report for March 2021, published earlier this month. Following publication, CNS recognized that the NES organization had never been informed. This Monday, the responsible manager contacted CNS NES personnel, and, following further investigation, CNS categorized this event as having resulted in an adverse effect on nuclear explosive safety.