

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 3, 2022

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** A. Gurevitch, Resident Inspector  
**SUBJECT:** Pantex Plant Activity Report for Week Ending June 3, 2022

**Operations:** Last week, Pantex onsite hazmat transporter (HT) personnel were offloading a transportation container, referred to as handling gear (H-Gear), encompassing a nuclear weapon into a staging facility. While the HTs were moving the H-Gear, they struck the top corner of the H-Gear container against a facility wall which scratched off approximately six inches of paint and one inch of gouged metal. Notifications were made to various organizations, including CNS Nuclear Explosive Safety (NES) personnel, who assessed the potential effect of the impact on the nuclear weapon, and determined the situation was safe and stable. This assessment was then followed up with an engineering evaluation to further assess whether the damaged H-Gear would serve as a Faraday cage and protect against direct lightning burn-through and electrostatic discharge. During the critique, participants identified a corrective action to conduct a briefing to review handling procedures with the HTs. The participants also discussed the adequacy of the walker/spotter specific administrative control (SAC) which did not prevent the event. Pantex plans to repackage the nuclear weapon into an undamaged H-Gear container.

**Safety Basis:** Last month, CNS determined that a Potential Inadequacy of the Safety Adequacy (PISA) related to a linear accelerator (LINAC) impact scenario resulted in an Unreviewed Safety Question (USQ) due to an increase in probability and consequence of an accident. On one weapon program, CNS identified that updated weapon response information from the design agency had not been incorporated into the safety basis. When incorporated, CNS identified an increase in risk for certain hazard scenarios. As part of this evaluation, Pantex also identified a typographical error on a separate weapon program in the safety basis. Upon further evaluation, Pantex determined that the existing controls—for example, personnel evacuation and control of equipment SACs—adequately control the associated hazards for both of these concerns.

**Special Tooling:** Last week, a production supervisor in the non-destructive evaluation department (radiography) questioned if a special tool used to support components during radiography operations was approved to be used, after being used to process three war reserve components. Six months ago, during an evaluation, the design agency (DA) requested the tool be modified, and qualified using a mock component. The standard process is to place a “prototype” sticker on the tool; however, due to a special coating, the sticker would have damaged the tool’s coating upon removal. Instead, the sticker was placed on the outside of the tool case, which was separated in a different room than where the tool was in use. As such, the tool was left in the operating bay without a marking designating its prototype status. After receiving the conditional qualification engineering release from the DA, the production supervisor was completing a form to return the facility to normal operations when they missed identifying that the tool should be sent back to the tooling warehouse for reacceptance to remove the prototype status. Subsequently, the tool was used on the three war reserve components. During the critique last week, participants noted several circumstances which made this event unique and documented several areas for improvement. A detailed causal analysis is scheduled.