

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 9, 2022

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** C. Berg, Acting Resident Inspector  
**SUBJECT:** Pantex Plant Activity Report for Week Ending September 9, 2022

**Safety Basis:** As part of an improvement initiative to weigh all special tooling and provide CNS safety analysis engineering (SAE) with bounding values, the production tooling department continues to ascertain actual tooling weights (see 10/29/21 report). This week, SAE declared a potential inadequacy of the safety analysis (PISA) when the Assembly Cart Platform was found to have a discrepant as-found weight compared to the value recorded in the safety basis. CNS did not implement any operational restrictions as a result of this PISA due to the specific hazards involving the special tooling—i.e., technician tripping scenarios—being addressed by an existing control. The safety basis already credits the configuration approach specific administrative control, which reduces the likelihood of these scenarios by minimizing tripping hazards and emphasizing slow and cautious approaches to the nuclear explosive along defined routes.

In addition, last month, NPO approved a justification for continued operations (JCO) related to a different cart assembly found to have a higher weight when compared to the value recorded in the safety basis (see 5/27/22 report). This discrepancy would require the application of a different weapon response rule for the impact hazard from this cart assembly. As a result, CNS SAE had previously declared a PISA and implemented an operational restriction—requiring two technicians to move this tooling combination in proximity to the nuclear explosive—to prevent the hazard scenario. This JCO removed the compensatory measure following a determination that the impact scenario is not credible given the orientation of the unit.

**Conduct of Operations:** This week, technicians inadvertently left a weapon subassembly containing Hazard Division 1.2D explosives, but no special nuclear material, within the interlock of a paint bay facility. Per their usual process, the technicians had placed the subassembly in the interlock in preparation for transportation to another facility. These transportation operations, however, require an explosive move window, which was not granted during their work shift. Before exiting the facility, the technicians failed to remove the subassembly from the interlock and place it back within the facility. Technicians on graveyard shift identified the discrepancy, immediately moved the subassembly back into the paint bay, and notified appropriate personnel.

Since the outer blast door of the facility interlock was secured, CNS SAE determined that this occurrence did not result in a technical safety requirement violation. Nevertheless, the incident did result in a non-compliance with a safety requirement in a *facility procedure*. The requirement states that nuclear explosives, nuclear material, explosives, and energetics components are not to be staged—with a few exceptions—in bay or cell equipment interlocks, personnel interlocks, or cell corridors. At the event investigation, CNS participants identified a corrective action to brief all satellite operations personnel on the restrictions related to staging material within interlocks. The technicians and production section manager also noted differing requirements depending on the facility where these operations are performed, which could lead to confusion. In response, CNS will ensure the *operating procedures* are updated to reference the above *facility procedure* regarding material staging expectations.