

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 17, 2021

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** A. Gurevitch, M. Bradisse (acting), and C. Berg (acting), Resident Inspectors  
**SUBJECT:** Pantex Plant Activity Report for Week Ending December 17, 2021

**Staff Activity:** Members of the Board's staff and the resident inspectors conducted walkdowns and discussions as part of a review of legacy conditions of approval and planned improvements.

**Safety Basis:** This week, CNS declared a potential inadequacy of the safety analysis when a special tool used on a specific program was found to have a discrepant as-found weight when compared to the value recorded in the safety basis (i.e., the actual weight was higher). For the recorded weight, the safety basis states that drop scenarios involving this tool do not require additional controls to prevent high order consequences. However, since the actual weight is higher than the recorded weight, it is unclear whether the weapon response for a drop scenario is still bounded by the existing analysis. As an operational restriction while the design agency confirms the adequacy of the weapon response analysis, CNS has implemented a specific administrative control requiring two technicians to remove the tool when exposed high explosives are present.

**Maintenance:** Last week, maintenance personnel performed semi-annual fire protection preventive maintenance activities for a specific nuclear explosive bay. As part of the procedure, personnel have the option to bypass the blast door interlock (BDI) and air handling unit for that specific bay—to keep the equipment operational during maintenance. However, the control panel for this set of bays is one of two panels that are configured differently from panels for other facilities. As a result, personnel mistakenly overrode (i.e., a different status from bypass) the BDIs and air handling units for several other nuclear explosive bays. Production personnel in these bays noted that the air handling units shut off and BDIs were overridden (i.e., the two sets of blast doors were able to be opened simultaneously) and contacted appropriate personnel. Facility representatives then entered the appropriate limiting condition for operation.

At the critique, participants noted that the procedure contained a step with an option to bypass the BDI and air handling unit, but neither the procedure nor the work order contained explicit instructions on the specific mechanics for performing those actions; maintenance personnel noted that proper operation of panels is generally covered as part of personnel training. One of the proposed corrective actions was therefore to create a controlled posting or other operator aid for these two specific panels.

At the investigation, this event was initially categorized as a management concern; however, during the critique, NPO personnel questioned whether another category would be appropriate. CNS initially stated that despite the BDI system being overridden, they did not consider the system inoperable, and therefore reaffirmed the management concern categorization. However, during subsequent conversations after the critique, they determined that it should instead be categorized as a performance degradation of a safety system when required to be operable, and amended the categorization to reflect this stance. Finally, CNS personnel determined a causal analysis should be performed to ensure this situation does not recur.