

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 16, 2024

TO: Katherine R. Herrera, Acting Technical Director
FROM: A. Holloway and C. Stott, Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending February 16, 2024

Staff Activity: J. Anderson, F. Bamdad, C. Berg, and Z. Demeke were onsite to review a hazard analysis report as part of assessing the effectiveness of Board Recommendation 2019-1.

Safety Basis: This week, CNS safety analysis engineering (SAE) declared a potential inadequacy of the safety analysis (PISA) related to the identification of a nuclear explosive with deformation and cracking on a weapon component (see 2/9/24 report). In response to the PISA, CNS implemented an operational restriction prohibiting further operations on the unit.

In addition, last week, CNS SAE declared another PISA when identifying the combination weight of two items (i.e., desiccant and electrostatic dissipative bag) exceeded the parameters for a specific impact hazard for one weapon program. CNS further determined that the PISA represented an unreviewed safety question due to the increase in probability of a previously evaluated accident and its consequences. In this instance, CNS did not implement any operational restrictions due to existing controls within the hazard analysis report.

Furthermore, last week, a CNS operations center manager discovered that the Pantex Plant Operations Center Manual had been updated and published without proper authorization. The manual update incorporated less restrictive *severe weather* controls. CNS personnel had previously questioned the new controls and their inconsistency with the current Technical Safety Requirements (TSR). CNS mission engineering personnel stated that the change was appropriate, as the less restrictive *severe weather* controls were approved by NPO and would be included in the next TSR revision. However, the next TSR revision did not include these revised controls since the necessary implementation process had not been completed. Since the Operations Center Manual still conflicted with the revised TSR, the CNS operations center manager determined that there had been three separate occurrences when actions were not taken in accordance with the TSR for high wind events. CNS declared that a violation of the TSR occurred due to this oversight. During the investigation, CNS personnel compiled actions to republish the previous Pantex Plant Operations Center Manual with the more restrictive *severe weather* controls, brief all plant shift superintendents on this change, and complete the necessary implementation process for the new controls.

NPO Correspondence: Earlier this week, NPO transmitted a memo to CNS identifying an emerging item of interest (EII) specific to the recent increase in weapon quality issues (see 9/15/23, 11/17/23, 12/8/23, and 1/19/24 reports). In the memo, NPO identifies seven weapon quality issues that “are directly chargeable to CNS in Fiscal Year 2024.” NPO has previously directed CNS to take corrective actions for each of the seven weapon quality issues listed. The purpose of this EII is to document NPO concerns and provide criteria for consideration during an overarching evaluation of the recent increase. NPO states that the evaluation “should consider underlying issues such as training, culture, overtime, error rate on graves versus day shift, etc., and relation to other known performance issues such as Conduct of Operations.”