

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 21, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: A. Holloway and C. Stott, Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending June 21, 2024

Readiness Assessment: Over the past six weeks, CNS Mission Assurance has conducted a series of eight causal analysis sessions related to the CNS self-suspension of a contractor readiness assessment (CRA) in March 2024 (see 3/22/2024 report). The CNS Site Manager directed a suspension of CRA activities until the project team achieves a sufficient level of readiness. Prior to the suspension, CRA Team observations indicated a “less than adequate level of readiness.” CNS Mission Assurance is conducting this causal analysis to identify what led to the readiness shortfalls and develop corrective actions to prevent recurrence. The CNS Issues Management Process document does not require a causal analysis or a formal report for the significance level assigned to this issue. However, the CNS Senior Director of Mission Assurance requested an in-depth causal analysis and formal report to fully understand and document what led to the readiness process issues.

During the causal analysis sessions, representatives from seven different CNS organizations provided input, including multiple senior leaders. The resident inspectors were present to observe all eight sessions and note that the level of rigor for this causal analysis significantly exceeds the previous causal analyses that the resident inspectors have observed. To date, CNS Mission Assurance has identified more than nine causes (including both root causes and contributing causes) from more than 110 lines of inquiry. Currently, CNS Mission Assurance has developed more than 30 corrective actions, which include: implementing a multi-faceted improvement plan for readiness activities; creating a Readiness Review Group; conducting project specific readiness training prior to beginning readiness activities; as well as ensuring that definitions, expectations, and requirements are consistent throughout CNS readiness phases.

As CNS Mission Assurance continues the analysis and develops future improvement plans, additional causes and corrective actions will likely arise. Furthermore, CNS Mission Assurance plans to incorporate interim actions to address current and near-term projects that will need attention before all of the corrective actions and improvement plans have been fully implemented. The resident inspectors note that the corrective actions developed by CNS Mission Assurance demonstrate a broader, holistic approach to process improvement across Pantex organizations.

Special Tooling: This week, CNS briefed PFO on their plan to resume operations that utilize certain cell stands after previously declaring a stop work event due to a loose lead screw nut (see 6/14/24 report). After easily recreating the failure, CNS determined that the cause of the loose lead screw nut was due to repeated contact between the nut and the lead screw stop when the cell stand trunnions are completely lowered. As a solution, CNS plans to issue a revision to the cell stand design which incorporates slightly lower lead screw stops. CNS asserts that this change will prevent repeated contact with—and subsequent loosening of—the lead screw nuts. CNS also plans to incorporate a slightly stronger (i.e., “medium strength”) threadlocker in the new revision to further mitigate loosening.