

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 25, 2021

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Mark Bradisse and Christopher Berg, Acting Resident Inspectors  
**SUBJECT:** Pantex Plant Activity Report for Week Ending June 25, 2021

**Readiness Assessment:** CNS continued the contractor readiness assessment for a certain weapon program (see 6/11/21 report). The resident inspector observed demonstrations of disassembly and radiography operations this week.

**Use of Improper Tooling Revision:** Yesterday, during operations on a joint test assembly, quality assurance technicians (QAT) used the wrong revision of a wrist strap checker. While their procedure specified using an original issue version of this tool, they instead used Revision A. The etching on the tool designated it as Revision A, but the QATs missed this fact, as they performed their verification task using only the tool number information from the preventive maintenance sticker, which does not specify the revision. CNS had previously briefed technicians on tool marking use and verification as part of a corrective action for a similar event; however, the QATs involved in this event did not receive that briefing. After the tool was used, CNS personnel identified that the revision of the tool did not match the procedure specifications.

During the event investigation, participants determined that the original issues of this tool were not available for production use, and thus the procedure should have been updated to mandate use of Revision A. However, this update never occurred. During the critique, participants further noted that a comparable incident occurred with another wrist strap checker last year, but the corrective actions associated with that event did not extend to this tool or its associated procedures. Additionally, to ensure tooling revisions were accurately captured in procedures, CNS previously instituted a corrective action to include tooling organization personnel in the procedure approval process; however, the last revision to this procedure occurred before this change was instituted. Personnel at the critique also discussed improving coordination between the process engineering and production tooling organizations during the tool archival process to avoid similar events. As corrective actions for this latest event, CNS will brief production personnel on special tooling identification and markings, update the applicable procedure with Revision A of this wrist strap checker, and conduct an extended review of tool revisions within procedures. They will also conduct a causal analysis for this event. Lessons learned will be applicable to joint test assembly, special nuclear material, and nuclear explosive operations.

**Safety Basis:** Earlier this week, CNS safety analysis engineering identified that onsite transportation of a joint test assembly—a nuclear explosive-like assembly (NELA)—for a specific weapon program was not analyzed in the documented safety analysis. Upon discovery, CNS declared a potential inadequacy in the safety analysis and, as an operational restriction, prohibited the onsite transportation of the joint test assembly. Of note, this gap in the safety analysis has existed for several years, during which these transportation operations have occurred. However, during these past operations, Pantex still instituted measures to preclude hazards to the NELA, as well as from the NELA to nearby nuclear explosives. These measures mirrored those employed during transportation of other NELAs and nuclear explosives, including the use of enhanced transportation carts and adherence to any movement restrictions.