

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 16, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Mark Bradisse and Christopher Berg, Acting Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending July 16, 2021

Blast Door Interlock (BDI) Failure: On Monday, CNS conducted a second event investigation/critique for a recent BDI failure (see 7/2/21 report). CNS convened this meeting in part to resolve discrepancies in the timeline established during the initial meetings. In light of the new information brought up during this second meeting, participants determined that the events of Monday, June 28, constituted a BDI system “failure,” where previously it was variously identified either as a “problem” or “trouble.” Once this event was properly categorized as a failure (i.e., the BDI system was inoperable due to both personnel doors being open concurrently), participants determined that personnel at the scene should have realized this at the time and should therefore have immediately entered the appropriate limiting condition for operation (LCO). Because the LCO was not entered—despite subsequent BDI component manipulations and checks reestablishing the operability of the system—participants in this meeting determined that the event constituted a violation of the technical safety requirements.

Special Tooling: On Monday, the production tooling organization reported that a tool—an enhanced transportation cart—was used with an expired preventive maintenance sticker (i.e., used beyond the in-service inspection grace period). CNS categorized the event as a violation or noncompliance of a credited hazard control in the documented safety analysis. The notifications for this event stated that due to close resemblance to a recent similar event (see 6/11/21 report), there would be no investigation or critique. The resident inspectors note that there have been several recent instances of improper/expired tool usage, whether due to ineffective notifications made regarding upcoming expirations (this week), improper or lack of verification of expiration dates (see 6/11/21 and 6/18/21 reports), or improper verification of the appropriate tool revision (see 6/25/21 report).

Conduct of Operations: Last weekend, two of three technicians reported for duty to perform disassembly operations on a warhead weapon program in a nuclear explosive cell. While performing nuclear explosive operations, the two technicians (both experienced employees) violated procedure requirements mandating the presence of three technicians for certain activities. At the event investigation, participants identified that the production technicians did not read all relevant portions of the nuclear explosive operating procedure, which contained the three-technician requirement. Per their process, the technicians should have read these sections in the procedure and paused operations since the required personnel were not present. As a result, the investigation participants concluded that reader-worker-checker—a core piece of disciplined operations at Pantex—was not adequately performed. As a corrective action, CNS plans to conduct briefings on reader-worker-checker expectations with all production technicians. The resident inspectors note that despite personnel requirements being discussed at the work standup meeting for this operation, this event indicates that such discussions between technicians and production section managers could be improved. Additionally, during the event investigation, CNS nuclear explosive safety personnel identified that improvements are needed in the event notification process to ensure all relevant parties are expediently informed.