

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 12, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Miranda McCoy, Resident Inspector
SUBJECT: Pantex Plant Activity Report for Week Ending February 12, 2021

Emergency Management: The CNS Emergency Management Department (EMD) conducted an emergency exercise this week. The scenario—a forklift puncture and fire involving nuclear material—was relatively simple compared to previous exercises, but allowed CNS to exercise and evaluate capabilities across several areas, including radiation safety and field monitoring, fire department, and emergency operations center functions. CNS is currently developing their after-action report and plans to conduct a more complicated full-scale exercise later this year.

Dosimetry: This week, CNS conducted a critique for an event involving a high dosimeter reading. In late January, CNS dosimetry received an abnormally high reading—in excess of 5 rem—for a quality assurance technician (QAT) from combined quarter 2/quarter 3 dosimetry. CNS issued combined dosimetry for this period due to degraded equipment resulting in a loss of dosimetry processing capability (see 9/11/20 report). Following the initial high dose identification, CNS dosimetry sent the raw dose data for processing, which was returned four days later with verification of the abnormal dose. The QAT was locked out of the material access area the next day, but was not removed from radiological work until the day after. LINAC operations were subsequently paused. In investigating the event, CNS determined that the QAT had lost and been reissued a quarter 1 dosimeter and had been reissued an additional dosimeter during quarter 3. QATs and a supervisor discovered a quarter 2 dosimeter for the individual under equipment by the LINAC; this dosimeter is assumed to be the source of the high dose. CNS personnel are writing an irregular dose report to document the events and the conclusion that the high dose was erroneous.

Lock Out/Tag Out (LOTO): CNS construction personnel performing demolition activities in Zone 12 cut and removed steam piping that included LOTO locks affixed to the removed portions, violating the LOTO program. The utilities supervisor, two operators, and the construction superintendent conducted a pre-job briefing earlier that day, and applied LOTO locks to piping valves in the open position. In the event critique, participants noted that the CNS construction personnel should have requested a LOTO partial removal. CNS identified two similar previous events involving subcontractors, and CNS construction management committed to provide a briefing to applicable CNS groups regarding LOTO requirements.

Nuclear Explosive Safety (NES): A NES change evaluation (NCE) study group completed their evaluation of a proposed short-term path forward for a recent anomalous unit (see 12/25/20 report). The CNS proposal includes removal of the unit from the workstand via a hoist, placement into a transfer cart, and transportation to a staging facility. A long-term path forward will be subsequently determined. The NES study group concluded with no findings and five deliberation topics. Noteworthy deliberation topics include: evaluation of the potential for hoist malfunction during operations, as it has an expired monthly preventive maintenance; discussion of whether an air monitor present for industrial hygiene purposes had adequate alarm setpoints to allow time for unit safe and stabling; and discussion of electrical control verification.