

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 1, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: A. Holloway and C. Stott, Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending March 1, 2024

Staff Activity: Resident inspectors assessed cell assembly activities for an operational safety review, as well as a nuclear explosive safety change evaluation for staging an anomalous unit in an enhanced transportation cart until a path forward can be determined (see 02/09/2024 report).

Grassland Fire: This week, due to high winds and dry conditions, the Texas Panhandle experienced historic wildfire activity. On Tuesday, Pantex declared an operational emergency due to a wildfire approaching the site. This fire, titled the “Windy Deuce Fire,” eventually came within four miles of the Pantex site boundary. In response, nonessential personnel were evacuated from the site with a small contingent eventually sheltering in place. The Plant Shift Superintendent activated the Emergency Response Organization, which reported to the emergency operations center (EOC) within the Pantex site or to the alternate EOC in Amarillo. The resident inspectors monitored emergency activities from the alternate EOC, noting a particularly swift response and collaboration between site and local personnel. Following termination of the operational emergency, NPO and CNS personnel discussed opportunities for improvement in future emergency responses, including communication enhancements between EOC locations to improve overall situational awareness.

Operating Procedures: As allowed by site requirements, CNS process engineering develops electronic line-throughs (ELT) of operating procedures as an operator aid under certain circumstances. ELTs do not undergo the same level of review and approval as typical operating procedures and therefore their use is limited to a few specific cases. As an example, if a nuclear explosive operating procedure (NEOP) could be used on a weapon program with multiple modifications, CNS process engineering would utilize an ELT to line-through certain steps and option trees that are not applicable to the specific weapon modification being worked.

CNS process engineering recently developed a nuclear explosive engineering procedure (NEEP) that directed the bypassing of certain steps within the NEOP. However, the CNS process engineer—attempting to provide an operator aid to support the production technician execution of the NEEP—inappropriately developed an ELT of the NEOP with the select operational steps removed. The ELT, though, had one additional step, related to application of Lubri-Bond® to a component, inadvertently removed beyond the NEEP direction. Consequently, production technicians when conducting operations per the ELT on two nuclear explosives did not apply Lubri-Bond® to the component. For the second unit, CNS quality assurance inspection technicians went beyond expectations and compared the ELT to the NEEP direction and identified the discrepancy. In response, CNS non-conformed the units and obtained a special exception release from the design agencies permitting continued assembly. Additionally, CNS process engineering performed an extent of condition review regarding the use of ELTs and discontinued all ELTs not in accordance with site requirements. Finally, in response to a recent nuclear explosive safety change evaluation (see 01/26/2024 report), CNS process engineering also discontinued the limited practice of using NEEPs to direct line-throughs of NEOP steps.