

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 28, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: Zachery S. Beauvais and Miranda McCoy, Resident Inspectors.
Peter J. Foster, Acting Resident Inspector
SUBJECT: Pantex Plant Activity Report for Week Ending February 28, 2020

Special Tooling Maintenance: CNS weapons operations is authorized to stage units in their transportable configuration in nuclear explosive facilities. Many of the staged units at any given time are loaded in an enhanced transportation container, type 1 (ETC-1). The Pantex documented safety analysis specifies a quarterly in-service inspection (ISI) of the electrically conductive gasket installed on each ETC-1, required for the ETC-1 to meet its lightning protection functional requirements. While preparing to move an ETC-1 from staging to an operational bay, the PSM noticed an expired sticker and initiated notifications. A unit had been staged in the ETC-1 in a nuclear explosive bay for the past three months due to competing weapons operations work priorities, during which time the quarterly ISI had expired and exceeded its grace period. The ETC-1 lightning protection requirements are only relied on during transportation. In 2017, NPO reinforced their expectations for approving special tooling maintenance extensions following an issue involving staged anomalous units (see 9/30/16 and 2/3/17 reports). Following a separate instance where the quarterly ISI for a separate ETC-1 was missed last year, CNS engineering developed a standing order requiring plant personnel to track the expiration of special tooling in-use on off-normal units. The standing order was written to exclude staging activities performed as part of normal operations—the situation that was encountered this week. During a critique held on this event, CNS personnel discussed other situations that might not be covered by the existing standing order and mentioned other pieces of special tooling that might be impacted. As an immediate corrective action, tooling engineering and production tooling will perform an extent of condition review to determine if other pieces of special tooling are in an expired status and in-use. The resident inspectors note that while tooling ISI dates are tracked electronically and maintenance expiration is verified prior to use, CNS does not currently perform steps to positively identify tooling with inspections coming due.

Fire Suppression System: Last weekend, CNS emergency services received an unknown trouble signal from the fire notification panel in a nuclear explosive bay. The Pantex fire department silenced the alarm and CNS facilities personnel placed the bay in maintenance mode. The bay did not contain nuclear material. The fire suppression system in this facility was significantly updated in 2019. The plant has experienced multiple instances of unknown trouble signals on other recently updated systems (see 1/3/20 report). CNS facilities has initiated a work order to gather additional data from systems that have experienced unknown faults and CNS engineering is working with the vendor to further diagnose the issues.

Training and Qualification: Over the past two weeks, CNS weapons operations management has conducted qualification oral boards for four candidate production section managers—the first line supervisors for production technicians. The resident inspectors observed portions of these oral boards and noted the use of new situational questions based on prior events and new protocols to prevent leading follow-up questions. The resident inspectors provided additional feedback on the board process to weapons operations management and NPO.