

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 2, 2019

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Zachery S. Beauvais and Miranda McCoy, Resident Inspectors  
**SUBJECT:** Pantex Plant Activity Report for Week Ending August 2, 2019

**DNFSB Staff Activity:** The resident inspectors participated in an offsite workshop to brainstorm options for the long-term vision of the Pantex safety basis. The workshop included CNS participants from Y-12 and Pantex and NPO personnel from Pantex.

**Radiography Operations:** Earlier this year, CNS began performing canned subassembly radiography to support an upcoming warhead Alt (see 4/12/19 report). CNS performed a contractor readiness assessment (CRA) to authorize the operation in one of two nuclear explosive radiography bays. At the time of the CRA, the second radiography bay was out-of-service while it underwent facility upgrades. While the CRA was specifically scoped to exclude operations in the second facility, the safety basis analyzed operations in either of the two radiography bays and the associated nuclear explosive operating procedure listed the operation as allowed in both bays. Following a technical issue in the authorized bay, CNS production personnel introduced and subsequently radiographed a cased subassembly (CSA) in the second, unauthorized bay. No nuclear explosives or other nuclear material was present in the bay when production personnel performed these operations. CNS production personnel completed their checklist for relocating operations, however that checklist does not include a step to verify that readiness activities have been completed to authorize the specified operations. While NPO and the Pantex contractor previously maintained a master authorization agreement that would denote the readiness status of various facilities and operations, they have discontinued its use. Following identification of the issue, process engineering implemented a restriction in the material move management system to prevent moving CSAs into the second radiography bay.

**Nuclear Material Inventory Control:** CNS technicians moved a container of nuclear material into a facility that was not authorized for that specific material, violating a specific administrative control for inventory limits. The container had recently been received as part of a routine offsite shipment to Pantex. Onsite material movements are typically tracked, and verified to be allowable, via the Integrated Production Planning and Execution System (IPRO); however, items accepted by supply chain material handlers are not immediately inventoried upon receipt, and the container had therefore not been entered into IPRO yet. All personnel involved had current training on Pantex's technical safety requirements (TSR). While technicians involved in the transfer questioned the move to the specific facility based on their familiarity with operations, they did not enter a formal pause or stop work and did not recognize that the move would result in a TSR violation. In the fact finding held on this event, supply chain management identified a corrective action to require supply chain management personnel to maintain custody of inbound hazardous materials until the material has been moved to the appropriate location within the material access area. Subsequent to this event, one of several conduct of operations breakdowns within the past month, Pantex Operations personnel held conduct of operations briefings to address operational attitudes and appropriate responses to unexpected conditions.