

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 1, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: Zachery S. Beauvais, Resident Inspector
SUBJECT: Pantex Plant Activity Report for Week Ending March 1, 2019

DNFSB Staff Activity: D. Andersen and Y. Li walked down ramps and loading docks with a CNS structural engineer, walked down a high pressure fire loop construction area with CNS construction personnel and observed Zone 4 operations with an NPO facility representative (FR).

Equipment Standoffs: The Pantex technical safety requirements (TSR) stipulate that any tooling or equipment that is not qualified to remain upright following a design basis seismic event or technician trip must be maintained “fall down distance plus 18 inches” from a unit staged in a non-destructive evaluation (NDE) facility, unless the unit is staged within an enhanced transporter (ETC). Following questions raised by an implementation verification review team, CNS process engineering identified that the operating procedures require a piece of equipment that does not meet stability requirements, a shop cabinet, to be present in the staging area of NDE facilities. While the normally used staging configuration would not require units to be in the immediate vicinity of the cabinet, the procedures did not preclude such a configuration. The control has been in place since 2014 and it is likely that technicians violated the standoff at some point in the past. Consequently, CNS management declared the discovery to be a violation of the TSR. CNS management has paused NDE operations on weapon programs that do not use the ETC for staging until the operating procedures can be revised to preclude the potential violation. In late 2018, CNS process engineering experienced a separate TSR violation related to implementation of seismic/falling technician hazard standoffs (see 10/26/18 report). Following that event, CNS initiated an extent of condition review that was intended to identify other instances where standoffs could not be implemented. The control applicable to NDE operations was inadvertently excluded from the review. CNS has also identified other control gaps related to seismic stability of equipment in the last year (see 4/12/18, 6/1/18 and 6/15/18 reports).

Falling Technician Hazards: CNS implemented new compensatory measures designed to reduce the likelihood of falling technician impacts during nuclear explosive operations in bays. Similar measures were previously implemented in cells (see 12/19/18 report).

Nuclear Explosive Safety: Quality Assurance Technicians (QAT) and their section manager attempted to move an item from a nuclear explosive staging cell to another facility. QATs and their section manager do not normally perform operations in cells and were unfamiliar with the facility. After removing the unit from the cell material interlock, the section manager observed that the interlock door was not latched and re-entered to secure the door. Simultaneous to this action, two QATs who had been maintaining two-person coverage in the facility exited through the personnel interlock and locked the facility. This left the section manager alone in the cell with an item that would require two-person control. The section manager immediately identified the violation and contacted the CNS FR to rectify the issue. The FR and safeguards personnel verified that the section manager had not tampered with any material while alone in the cell. While electronic interlocks would normally prevent this issue, the exact order of events allowed the section manager to inadvertently enter the area.