

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 15, 2019

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Zachery S. Beauvais, Resident Inspector  
**SUBJECT:** Pantex Plant Activity Report for Week Ending March 15, 2019

**Severe Weather:** The southern edge of a weather system known as a “bomb cyclone” impacted the Texas Panhandle. Pantex experienced wind gusts in excess of 70 miles per hour. The high winds caused personnel injuries and damage to various structures, outbuildings and infrastructure at the plant. This included damage to the following areas involved in the handling of nuclear explosives or nuclear material: roof damage to a special nuclear material (SNM) warehouse and an SNM surveillance and storage facility, damage at a loading dock facility, damage to a roll-up door in a separate loading area, and damage to multiple light poles and downed power lines in Zone 4. CNS personnel successfully de-energized the downed wires. Following the wind event, CNS facilities personnel completed a series of walkdowns to assess the extent of the damage. They have initially concluded that none of the damage compromised the structures’ ability to perform nuclear safety functions. Operations have resumed in most impacted areas. CNS has initiated a recovery team to determine their path forward to address the damage.

Last week, CNS held a fact finding meeting to establish the timeline of events leading to a failure to sustain actions associated with severe weather warnings late last month (unrelated to the severe weather described above). The Pantex technical safety requirements (TSR) direct plant shift superintendents (PSS) to issue a severe weather warning, take actions to restrict transportation and notify operators of the condition upon receipt of a severe weather warning issued by the National Weather Service (NWS). While the PSS initially issued the warning, they cancelled it soon after issuance. Emergency Services management sanctioned the PSS deviating from the approved severe weather process. In their rationale for this deviation, the PSS stated “per NWS, a “High Wind Warning” is not considered to be “Severe Weather” unless associated with a thunderstorm.” The NWS statement contradicts the TSR definition of severe weather and the usage of the control in the documented safety analysis. Per the timeline established at the fact finding meeting, plant personnel conducted six nuclear material moves in violation of the TSR. CNS management held remedial training for the involved PSS and plans to further develop corrective actions following a causal analysis.

**Forklift Operations:** After recently observing nuclear explosive handling activities in Zone 4, DNFSB staff performed an additional review of assumptions in the Pantex transportation safety analysis report (SAR). They determined that stated forklift load capacities would not meet requirements for margin and demand during loading operations when the total weight of units, handling gear and transportation overpacks was considered. They communicated this observation to site personnel. NPO staff verified that the forklifts used for these operations exceeded the capacities listed in the SAR and could be safely used to load and unload units in configurations including the overpacks. CNS safety analysis engineers evaluated the discrepancy using the problem identification and evaluation process. CNS concluded that the capacities listed in the SAR are not used as a reference for determining that forklifts are suitable for use, and that the table is used for description purposes only. CNS determined that the discrepancy does not indicate that an assumption used in the SAR is unbounding.