

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 30, 2017

**MEMO TO:** Steven Stokes, Technical Director  
**FROM:** Ramsey Arnold and Zachery Beauvais  
**SUBJECT:** Pantex Plant Report for Week Ending June 30, 2017

**DNFSB Staff Activity:** D. Brown observed a nuclear explosive safety (NES) study of proposed operations for an upcoming W78 repair campaign. NNSA kicked-off the NES study last week. J. Anderson and C. Berg observed a NES change evaluation (NCE) of controls implemented to address pneumatic hose whip hazards on one weapon program (see entry below). The staff met with CNS project engineering personnel to discuss design changes underway for the modular vacuum chamber facility to address lightning hazards in the as-built system ventilation piping, and walked down the facility. CNS also held a causal analysis meeting to discuss how emerging technical information that challenged the lightning hazard mitigation strategy, ultimately resulting in a design change, was communicated prior to constructing the facility.

**Issue Resolution Groups (IRG):** The staff met with an NNSA-led IRG to discuss the current status of an updated set of weapon responses for all operations on one weapon program. For several months, the IRG, which consists of personnel from NNSA, CNS, and the design agencies, has been working to understand how the updated set of weapon responses compares to the currently implemented weapon responses, and determine if there are any safety impacts to authorized operations. This week, the weapon response information was formally received by CNS from the design agencies. Upon receipt, CNS declared a potential inadequacy of the safety analysis (PISA) and paused affected operations. The updated weapon response rules related to a postulated hose whip accident scenario showed that the likelihood of accident consequences had increased from the previously implemented weapon responses. A similar IRG process is also underway for a separate weapon program that is undergoing a weapon response update. The recently declared PISA related to a similar change in hose whip weapon response information on the separate, conventional high explosives program, was determined to be a positive unreviewed safety question (see 6/23/17 report). NNSA convened an NCE to evaluate proposed process changes and found no findings or deliberation topics. CNS will implement the proposed controls prior to resuming bay operations.

**Emergency Radiation Treatment Facility (ERTF):** Pantex conducted a drill at the Baptist St. Anthony (BSA) Hospital to test the effectiveness of the CNS ERTF team's execution of procedures with the BSA emergency response organization. BSA and the Northwest Texas Healthcare System Hospital recently replaced the Veterans Affairs Hospital as the Pantex ERTFs (see 12/21/16 report). As a result, this was the first ERTF drill at BSA. The drill scenario included the arrival of three injured patients, in series, that were confirmed to be radiologically contaminated. ERTF team members drilled their capabilities which included activating the team, preparing the facility for receiving patients, donning and doffing of personnel protective equipment, surveying and decontaminating radiologically contaminated wounds, and controlling contamination at hot/cold boundaries. Additionally, the Pantex Emergency Management Department was able to assess if adequate supplies were available at the ERTF, better understand BSA practices for treating patients, and share Pantex best practices on contamination control with BSA participants. The resident inspectors, and personnel from NPO and the City of Amarillo observed the drill. The participants and observers provided constructive feedback during the hotwash following the drill.