

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 21, 2015

MEMO TO: Steven Stokes, Technical Director
FROM: Zachery Beauvais, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending August 21, 2015

DNFSB Staff Activity: J. Deplitch was onsite to observe the site-wide emergency exercise. R. Arnold and C. Berg were onsite to attend Nuclear Explosive Safety (NES) Training.

Site-wide Emergency Exercise: The Pantex Plant conducted a full participation site-wide emergency response on August 19, 2015. The site representative and a member of the Board's staff observed response at the incident command and the emergency operations center, respectively. The exercise scenario simulated response to a threatened car bomb, two active shooters and detonation of an explosive device at a shipping and receiving building, causing the release of multiple canisters of nitrous oxide. The close proximity of the shipping and receiving facility to the plant boundary led to declaring a General Emergency for the chemical release. The exercise included four events for the emergency response organization to categorize and classify and determine protective actions. The scenario did not include any radiological release or functional participation by radiological control personnel. The exercise presented a challenging scenario for the plant protective force and the fire department and included participation of offsite emergency medical personnel providing mutual aid. The staff members observed that, in contrast to recent exercises, this exercise scenario allowed participants a greater level of play and required fewer instruction injects from controllers. The response demonstrated problems with establishing a unified command and identifying the incident commander.

Anomalous Unit Determinations: On August 17, 2015, the site representative and a member of the Board's staff observed a meeting conducted by National Nuclear Security Administration, Consolidated Nuclear Security Process Engineering, and Design Agency personnel to determine if two separate units met the criteria to be declared anomalous units. The team assembled for the determination concluded that a unit which failed a detonator cable assembly electrical test is anomalous but a unit with broken shear wire pieces did not meet the criteria (see 8/14/2015 report). The team stated that they plan to expand the response for the previously declared anomalous unit to address this one as well (see 4/17/2015).

NES Change Evaluation (NCE): The NES Study Group (NESSG) conducted an NCE to evaluate compensatory actions proposed by CNS to resume operations in a nuclear explosive cell with inoperable safety class fire suppression. The fire suppression system is unavailable due to a high pressure fire loop (HPFL) leak discovered last week affecting a facility where cut and cap operations had been occurring (see 8/14/2015 report). Prior to repairing the HPFL, CNS must complete the paused nuclear explosive operation. The proposed corrective actions include implementing a fire watch during active operations and stationing fire department personnel outside the facility. If a fire requiring deluge activation is detected, the individual performing the fire watch will activate a manual pull, which will prompt Pantex emergency personnel to alert the nearby fire department personnel to open the valve allowing water to flow to the system. Additionally, CNS performed a structural analysis to demonstrate that the facility structure would be capable of performing its safety function if the HPFL leak formed a void below the facility. The NESSG did not identify any NES findings during their evaluation.