

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 4, 2015

**MEMO TO:** Steven Stokes, Technical Director  
**FROM:** Zachery Beauvais, Pantex Site Representative  
**SUBJECT:** Pantex Plant Report for Week Ending September 4, 2015

**Facility Maintenance:** Consolidated Nuclear Security, LLC (CNS), personnel performed maintenance on safety systems including those located in nuclear explosive bays and cells. The work was performed by individuals trained and qualified to perform such tasks, but who had most recently been serving in a supervisory role. Activities completed this week include preventive maintenance on nuclear explosive cell blast doors, radiation alarm monitoring systems, fire pumps and emergency lighting systems. Nuclear explosive work remains paused following the expiration of the extension to the collective bargaining agreement with the unions representing Pantex bargaining unit employees (see 8/28/2015 report).

**Potential Inadequacy of the Safety Analysis (PISA) and Positive Unreviewed Safety Question (USQ) for Anomalous Units:** On August 31, 2015, CNS declared a PISA related to two anomalous units. On September 1, 2015, CNS upgraded the PISA to a positive USQ. The two affected units had each experienced an out-of-tolerance measurement during the same detonator cable assembly electrical test (see 8/14/2015 and 4/17/2015 reports). The out-of-tolerance test results indicated the potential for a condition not specifically evaluated in the applicable Hazard Analysis Report. Last month, CNS process engineers prepared a Nuclear Explosive Engineering Procedure to re-perform the electrical test by sequentially testing a series of resistance values. CNS developed an Information Engineering Release (IER) in which they requested that the design agency provide weapon response information for newly identified hazards encountered during the proposed retest of the anomalous units. The design agency responded with an IER communicating the potential for high order consequences resulting from certain postulated hazards. CNS is developing a Justification for Continued Operations.

**Fire Penetration Seals:** Last week, as part of an ongoing review of fire penetration seals, CNS fire protection engineers discovered an unknown material in three seals located in a warehouse facility (see 8/28/2015 report). Through continued execution of the extent of condition review for previously identified fire penetration seal issues (see 2/21/2014 report), CNS fire protection engineers identified other locations within the facility where fire penetration seals are non-compliant and, in two cases, penetration seals are absent. On August 28, 2015, CNS declared a PISA related to this condition. On September 3, CNS upgraded the PISA to a positive USQ.

**Assessment of Open Nuclear Explosive Safety Study (NESS) Findings:** This week, NPO completed an assessment of corrective action plans (CAP) related to open NESS post-start findings. The assessment team determined that the CAPs developed for closure of multiple NESS findings are out of date and inconsistent with information contained in the most recent quarterly status report on open NESS findings. In one instance, a closure package was rejected by NPO and CNS failed to develop a subsequent submittal to address the NESS finding. The assessment also identified lessons learned related to federal Nuclear Explosive Safety oversight and CNS roles and responsibilities for closure of NESS findings.