

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 10, 2016

MEMO TO: Steven Stokes, Technical Director
FROM: Ramsey Arnold and Zachery Beauvais, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending November 11, 2016

Fire Dampers: Special Mechanic Inspectors (SMI) paused execution of a preventive maintenance procedure which called for SMIs to mechanically actuate safety-significant fire dampers. The procedure was paused due to inadequately sized ventilation access doors which were needed to facilitate this activity. Without properly sized access doors, the SMIs and a fire protection engineer observing the work determined that the maintenance could not be completed. Several previously executed work orders note that this maintenance was completed, however it is unclear how this could have been performed. Maintenance personnel subsequently installed an access door to allow the functional test to be completed. CNS established a team to perform a comprehensive extent of condition of credited fire dampers to include review of all applicable drawings and procedures, to be verified by facility walkdowns.

Two Person Control: Last week, a protective force officer identified a material access door to a nuclear explosive bay that could have allowed unauthorized facility access when the door opened during a routine check of the locked facility. CNS determined that a latching component replaced during recent corrective maintenance performed on the facility allowed the door to open. The latching mechanism that had been previously installed contained a modification that prevented the door from being opened from the outside. The modification, which was performed in the mid-1990s, was not documented in facility configuration management. This latent condition allowed a carpenter to unknowingly install a latching mechanism that would be incapable of performing this necessary function. The facility contained electrical equipment required to be under two person control at the time of discovery, and nuclear explosives had been processed through the facility while it was in its degraded condition. Upon discovery, the protective force and facility management performed initial actions to secure the facility and determined that the condition did not exist on other similar material access doors.

Authorization Basis: NPO issued safety evaluation reports (SER) approving the justification for continued operations (JCO) in a facility with a missing fire damper (see 11/4/16 report) and approving an evaluation of the safety of the situation (ESS) addressing the use of inappropriate weapon response values for lightning hazards on one weapon program (see 10/7/2016 report). CNS issued a standing order to implement the compensatory measures specified in the JCO, which include a combustible free standoff area. The ESS states that after applying the correct, more conservative weapon response value and the probability of the lightning strike, the accident is beyond extremely unlikely, and no additional controls are necessary.

Combustible Controls: Following the recommendation of an internal study on trends in recent technical safety requirement violations, Pantex management assembled a multi-disciplinary team to perform a review of the combustible control program (see 7/22/16 report). The team out briefed the results of their review and provided recommendations which include streamlining standoff distances, extending combustible control training to all personnel with unescorted access to the material access areas, and purging legacy combustible pallets and radiation shield stands from nuclear material areas.