DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 31, 2013

MEMO To: Steven Stokes, Acting Technical Director
FROM: Thomas Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending May 31, 2013

Facility Insult Authorization Basis Changes: This week, the NNSA Production Office (NPO) issued a Safety Evaluation Report (SER) approving three authorization basis change proposals related to the facility insult accident scenario. NPO directed B&W Pantex (B&W) to provide a more realistic evaluation of the vehicle impact hazard as part of the Justification for Continued Operations stemming from a positive Unreviewed Safety Question in October 2012 (See report for 10/12/2012.). B&W's change proposals revised several Safety Analysis Reports (SARs) to identify the functional requirement of the facility structure to withstand a vehicle impact only for facilities where a vehicle impact is considered credible. The SAR changes replaced the existing evaluation for vehicle impact scenario in its entirety. The revised scenario divides vehicles into four categories by weight. In the heaviest vehicle category, B&W considered the scenario not credible based on the small number of vehicles in this category, their low speed, the use of spotters and checkers, and the fact that they are only off road while maneuvering into position. B&W did not evaluate fire trucks in this analysis because the only reason they would be traveling off road would be in an emergency situation, which B&W considers outside the scope of the SARs. B&W found that the facility structure, and other features such as access denial barriers, met the functional requirement for all other vehicle weight categories.

The SER issued by NPO contained one condition of approval. NPO directed B&W to revise the Pantex speed limit Specific Administrative Control (SAC) to require a posted speed limit of 20 miles per hour. In the SER cover letter, NPO suggested that B&W consider developing a Vehicle Safety Program to replace the practice of using SACs to establish the requirements for the safe operation of motor vehicles. NPO suggested that the Vehicle Safety Program should capture the aspects of normal motor vehicle operation on site that are relevant to the evaluation of vehicle hazards in the SARs.

Category 1 Electrical Equipment: On May 3, 2013, B&W Pantex discovered Category 1 electrical equipment that was issued for use without documentation of required electrical inspection. B&W took immediate action to tag all Category 1 electrical equipment out of service. This week, B&W completed verification that 100% of Category 1 electrical equipment and associated cables/adaptors currently in use in nuclear explosive activities have Special Tooling Inspection Electrical documentation.

Fire Detection System Failure: This week, B&W Pantex reported the performance degradation of a safety-class system when not required to be operable. A Det-Tronics® relay module of the ultra-violet (UV) fire detection system failed during preventive maintenance. B&W maintenance personnel replaced the Det-Tronics® relay module. B&W Pantex has a limited number of spare relay modules. B&W Pantex has a long-term plan to upgrade the Det-Tronics® UV fire detection system, which is based on the current rate of attrition of the existing modules. The last time B&W Pantex replaced a relay module was in November, 2012. (See reports for 10/26/2012 and 11/30/2012.)