

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 5, 2013

MEMO TO: Steven Stokes, Acting Technical Director
FROM: Thomas Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending April 5, 2013

Positive Unreviewed Safety Question (USQ) Determination for Fire Barriers: This week, B&W Pantex upgraded the Potential Inadequacy of the Safety Analysis (PISA) issued last week for fire barriers in a special nuclear material facility, to a positive USQ. (See report for 3/29/13.) B&W discovered inconsistencies between the Nuclear Material Safety Analysis Report and the Fire Hazard Analysis with regards to the fire rating of the building's interior wall separating facilities within the building. B&W had paused most operations within the building after declaring the PISA. B&W is preparing an Evaluation of the Safety of the Situation (ESS) to submit to NNSA Production Office (NPO).

Anomalous Unit: This week, B&W Pantex sent an engineering evaluation to the Design Agency in the form of an Information Engineering Release detailing what they believe is the state of the unit, in its current configuration. The NNSA project team for this anomalous unit has not officially established the path forward. One option considered by the project team is to radiograph the unit. In order to radiograph the unit, B&W would need to perform minor operations on the unit to get it into a configuration that can be approved for on-site transportation to the radiography facility. Operations on this unit remain paused. (See reports for 3/1/13, 3/8/13, and 3/15/13.)

Radiation Safety Paused Operations in One Facility: B&W radiation safety personnel paused operations in one facility when a puff of dust was observed coming from a bomb case during normal disassembly and inspection (D&I) operations. As part of the normal D&I process, B&W production technicians (PTs) are allowed to tap on the outside of the bomb case with a mallet to release the components inside the case. At this point in the process, the PTs observed a puff of dust coming from the bomb case. This is performed inside a contamination area (CA) with air sampling performed around the perimeter of the area. Also, each PT wears a breathing zone monitor. The PTs breathing zone monitors did not alarm, nor did the facility continuous air monitors. The PTs performed a normal evacuation from the CA and vacated the Bay. B&W radiation safety performed additional frisking of the PTs and obtained nasal smears. B&W radiation safety also performed additional smears of the CA within the Bay. The facility representative locked down the facility until the survey results were in. Two of the PT's nasal smears showed contamination slightly above the detectable limits. All the affected PTs will continue to be monitored in the bio-assay program. The results of the facility smears came back negative, and radiation safety has released the facility. B&W is considering procedural changes to prevent this event from recurring.

Super Cover Damages Work Stand: B&W Pantex paused operations in one facility when PTs damaged a vacuum fitting on the outside of the work stand while installing the Super Cover to the stand. Vacuum was lost to the work stand, however the fixture holding the unit held vacuum. B&W nuclear explosive safety, authorization basis, and process engineering determined the unit was safe and stable. B&W tooling engineers will issue a Nuclear Explosive Engineering Procedure to repair the work stand with the unit still in the stand.