

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy Dwyer, Technical Director
FROM: Tom Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending November 9, 2012

Fire Barrier Penetration Seals – Status Update: B&W Pantex is operating under a Justification for Continued Operation (JCO) in facilities with suspect fire barrier penetration seals. (See reports for 8/10/12, 8/17/12, and 8/24/12.) The JCO will expire on February 28, 2013. Since the JCO was issued, B&W Pantex has completed replacing the penetration seals on four facilities. B&W Pantex has thirty one facilities that still need the penetration seals replaced. This week, B&W Pantex is not working on any penetration seal replacements. B&W Pantex has contracted this work to a vendor that is expected to start working the first week in December, 2012. B&W Pantex is complying with the compensatory measures stated in the JCO.

Conduct of Maintenance: This week, B&W Pantex held a critique for an event where B&W special mechanical inspectors performed a post-maintenance test with a Category-2 electrical tester that was more than ten months overdue for inspection. While replacing the deluge fire suppression system solenoid valve in one facility, the B&W special mechanical inspectors perform a post-maintenance functional test of the ultra-violet (UV) fire detection system. This involves the use of a Category-2 electrical tester (UV light tester) to intentionally activate the UV sensors in the facility, and verify that the solenoid valve functions as designed. At the completion of the test, the NNSA Production Office facility representative noticed the inspection date on the UV light tester was more than ten months overdue. The B&W special mechanical inspectors paused the work and made the appropriate notifications.

The *DOE Nuclear Explosive Safety Manual*, (DOE M 452.2-1A) defines a Category-2 tester as a tester that is not intended to connect to the electrical system of a nuclear explosive, but could come in contact with a nuclear explosive. For B&W special mechanical inspectors, the nuclear explosive safety (NES) criteria for use and control of Category-2 electrical equipment are given in B&W's *Safety Checklist* (Table-0068). The B&W work control personnel developed the work package, and special mechanical inspectors performed this test within the constraints of the Table-0068. The primary constraint is that work must be performed outside of a ten foot zone of influence around any nuclear explosive or nuclear material. At the critique, B&W management expressed concern that, although the work package instructed the inspectors to look for the Category-2 sticker on the instrument, there was no requirement to verify that the Category-2 electrical equipment had a current inspection. B&W management is addressing the event in the Problem Evaluation Request system.

Conduct of Operations: This week B&W production technicians paused work in one facility due to a production anomaly. The production technicians noticed during assembly of a unit that the keyway was out of alignment with the physics package. The production technicians placed a hold on the unit and made the appropriate notifications. The Design Agency and B&W engineering released an Engineering Instruction to correct the alignment and assembly of the unit has continued.