

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy Dwyer, Technical Director
FROM: Matthew Duncan and Rory Rauch, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending January 21, 2011

Board Visit: Dr. Peter Winokur, Ms. Jessie Roberson, Mr. Joseph Bader, Mr. Larry Brown, and Dr. John Mansfield, along with staff members J. Batherson, B. Laake, M. Moury, and R. Tontodonato were onsite to meet with plant personnel to review the safety of nuclear and nuclear explosive operations. Topics of discussion included future tooling upgrades, nuclear explosive tester safety, vital safety system upgrades, procedure improvements, and safety basis development.

Electrical Test Anomaly: Last week, technicians obtained an anomalous reading while testing the resistance of a detonator cable assembly (DCA) during a disassembly and inspection operation. They immediately disconnected the tester from the nuclear explosive and contacted their supervisor. B&W engineering personnel believe the anomalous reading resulted from a problem with the interface between the DCA and tester because 1) the tester passed diagnostic screens before and after the test and 2) B&W engineering personnel have been unable to postulate a plausible electrical phenomenon involving solely the DCA that would correspond to this reading. The responsible design agency is requesting a retest of the unit. If the request is granted, NNSA will schedule a nuclear explosive safety change evaluation of the proposed retest.

Offsite Shipment: B&W recently discovered that it shipped an item to another DOE facility without properly preparing it for shipment. Per the terms of the applicable offsite transportation authorization (OTA), these items require a DOT- approved cover, a sleeve, and a nitrogen fill (and subsequent leak check) before they can be shipped. Technicians currently prepare these items for shipment immediately upon removal from the unit; however, the subject nonconforming item (along with several others) was disassembled before B&W had instituted this practice (when program personnel thought the items would be reaccepted and reused). The process engineer responsible for these items was aware of these nonconforming configurations, but had failed to communicate their existence to the B&W program manager who was responsible for determining which items to gather for shipment. Further complicating the matter was the fact that a properly prepared item looks identical to those that have not been prepared for shipment. Manufacturing management performed a full inventory review of all similar items and determined that these items are either staged in an OTA-approved configuration or had some flag in place (e.g., work order) to prevent shipment of the item in an unauthorized configuration. It should be noted that the receiving facility will have no issues processing the item.