

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 24, 2013

MEMO To: Steven Stokes, Acting Technical Director
FROM: Thomas Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending May 24, 2013

Board Staff Activities: This week, J. Mercier was at the Pantex Plant to observe the Bays and Cells Nuclear Explosive Safety Master Study activities.

High-Mast Lights Positive Unreviewed Safety Question (USQ): This week, B&W Pantex operations have been constrained by the installed barricades in all areas of the Material Access Area that could possibly be impacted by a falling high-mast light tower. (See report for 5/17/2013.) B&W Pantex removed one of the high-mast light poles and performed in-house non-destructive and forensic testing to validate the wall thickness data obtained by the subcontractor. Unlike the subcontractor's data, B&W's data indicated that the pole wall thickness was within specification. At B&W's request, the subcontractor consulted with the manufacturer of the non-destructive evaluation equipment regarding the measurement technique used. The manufacturer advised the subcontractor to change the operating mode of the ultrasonic tester in order to avoid potential erroneous readings. The subcontractor repeated several measurements and found the wall thickness to be within specifications. B&W Pantex contracted with a second subcontractor, also certified in this measurement technique, to verify the data from the original subcontractor. All wall thickness measurements are now within the required specification, except one anomaly.

B&W engineering division has transmitted an Engineering Evaluation and an Evaluation of the Safety of the Situation (ESS) to NNSA Production Office (NPO) detailing all the measurement data. B&W Pantex states in the transmittal letter that the ESS is for information only. It further states that the conclusion is that the original testing is invalid and a positive USQ no longer exists. B&W Pantex has removed all barricades around all high-mast light poles, except the one with an anomalous reading, and resumed operations with no operational restrictions. NPO will not issue a Safety Evaluation Report, since B&W is declaring that the positive USQ no longer exists, and the ESS is for information only.

Extension of Justification for Continued Operations (JCO): In February 2013, NPO returned a safety basis change proposal to B&W Pantex without taking action to issue a Safety Evaluation Report. (See report for 2/22/2013.) NPO directed B&W to obtain Design Agency concurrence that the weapon response data provided for the original JCO bounds the associated weapon response data currently in the CASTLE (Collaborative Authorization for the Safety-basis Total Lifecycle Environment) database. B&W Pantex sent an Information Engineering Release (IER) to the design agency requesting an updated weapon response for this particular operation. The design agency sent back the weapon response with minor changes to the original weapon response in the worker safety category. These minor changes to the weapon response did not impact this specific operation, and B&W resubmitted the JCO extension request. NPO approved the extension of the JCO and issued a Safety Evaluation Report Addendum. NPO extended the JCO until November 29, 2013.