

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy J. Dwyer, Technical Director
FROM: Timothy Hunt and Rory Rauch, Pantex Site Representatives
DATE: 9 January 2009
SUBJECT: Pantex Plant Weekly Report

Unreviewed Safety Question (USQ): In November, B&W Pantex declared a potential inadequacy in the documented safety analysis (DSA) when it discovered the earth overburden on some areas of a nuclear facility was less than the height described in the DSA. A positive USQ was declared this week when calculations demonstrated a slight increase in risk associated with this discrepant condition. Operations were immediately suspended in the affected facility, with the exception of transportation activities to reduce nuclear material inventory. B&W Pantex has submitted a justification for continued operations (JCO) to permit the restart of operations. PXSO is planning to approve the JCO with a three month duration, at which time the DSA should be permanently amended to reflect the change in risk associated with this discovery.

W78 Operational Safety Review (OSR): DOE Standard 3015, *Nuclear Explosive Safety Evaluation Process*, requires an OSR every 60 months for an authorized nuclear explosive operation with a non-expiring nuclear explosive safety study (NESS). To satisfy this requirement, NNSA would have to complete an OSR on active W78 nuclear explosive operations (NEOs) by 4 April, 2009. However, process and DSA changes to address newly identified electrostatic discharge concerns have delayed the restart of W78 NEOs until May 2009. Therefore, PXSO submitted a remediation plan to NA-12 this week requesting deferral of the W78 OSR until FY10. The plan specifies the previously approved NESS and the reviews that will be conducted prior to restart of W78 NEOs (to include a nuclear explosive safety change evaluation, contractor readiness assessment, and NNSA readiness assessment) as the means of assuring nuclear explosive safety until the OSR is conducted.

B53 SS-21 Startup: A delay in obtaining peer-reviewed weapon response and the need for an additional tooling modification have resulted in a delay of approximately two months—to December 2009—in the schedule for authorizing B53 SS-21 dismantlement operations. If this change in schedule holds, B&W Pantex will not be able to complete the B53 dismantlement campaign by the originally intended date of September 2010 without allocating additional facilities or manpower.

Electrostatic Discharge (ESD) Controls: It was discovered twice this week that facilities with static dissipative flooring did not have shoe testers outside the bays. All personnel are required to check the electrical conductivity of their shoes before entering these facilities. Both shoe testers had been removed for periodic maintenance and calibration but not replaced. Personnel observed entering the subject bays used the shoe testers located in front of adjacent facilities. Currently there is no written guidance on how close to the facility the shoe tester must be stationed, how barriers are to be positioned, or where ESD facility postings are to be located. B&W Pantex is assembling a team of manufacturing and engineering personnel to evaluate and develop formal direction on the control of shoe testers and access to facilities with static dissipative flooring.

W76-1 Assembly Operations: Late this week, a few flakes of material were chipped off a weapon component during the mating of two items. Similar damage occurred during assembly of the first production unit last August. At that time, the tooling was modified to minimize the possibility of recurrence. Initial indications are that the straightness of a part and not the subject installation fixture was the main cause of the recent event. The damaged component is being replaced while B&W Pantex engineers evaluate further refinements to the process.