

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: 24 August 2007
SUBJECT: Pantex Plant Weekly Report

DNFSB Staff Activity: B. Laake was at Pantex to observe the first week of the W80 SS-21 disassembly and inspection Nuclear Explosive Safety Study.

Tooling Malfunction: While attempting to load a unit into a transportation cart (ETC I), the interlock that prevents rotation of the lifting and rotating fixture released. The unit was in a horizontal orientation when it unexpectedly rotated. A protective cover—which was installed after the nose and forward components were removed during the disassembly—struck the top, inner surface of the cart. The production technicians put the unit in a safe and stable configuration by backing it away from the ETC I, rotating the unit into a vertical configuration (heavy end down), and lowering the unit. A few days later, a supplemental procedure was used to hoist the unit from the suspect fixture and transfer it to an alternate copy of the same fixture. Using a trainer unit and another copy of the fixture, BWXT engineering was able to recreate the scenario and identify that the tooling could be put in a configuration that would allow undesired rotation of the unit. BWXT plans to revise applicable procedures to include additional verifications of the tooling configuration prior to use. Operations utilizing this style of lifting and rotating fixture were suspended immediately following the incident and will remain suspended until the procedure changes and associated training occur.

Anomalous Transportation Configuration: Upon opening a transportation cart (ETC II), production technicians discovered that the physics package was not secured in the holding fixture as expected. The physics package had been loaded into the ETC II and staged for ten days prior to being sent to the bay for disassembly. The holding fixture, which stabilizes one end of the unit during transport, is not a credited piece of tooling and no damage occurred to the unit. A hold was placed on loading and transporting ETC IIs pending an engineering investigation into whether there was a personnel performance or tooling design issue.

Conditions of Approval (COAs): BWXT recently issued a plan for closure of post-start COAs (also referred to as technical review comments) developed by PXSO during safety basis approval reviews. More than a year ago, PXSO identified that there were more than 600 open COAs and that BWXT should improve its COA tracking and closure processes. BWXT's plan shows that all but 46 of the COAs will be closed by the End State Documented Safety Analysis project or during the next annual update of safety basis documents. PXSO expects that BWXT will submit evidence packages to close COAs that are more technical than administrative.

Emergency Exercise: BWXT recently performed its annual emergency management exercise that consisted of a Category EF-3 tornado striking Pantex resulting in mass casualties and damage to facilities. The exercise focused on command control and communications, as well as the response capabilities of the Pantex Fire Department and Occupational Medicine Department. The overall Emergency Response Organization performance and Emergency Management Program capabilities were acceptable to the evaluators; with 12 objectives receiving a satisfactory rating, and two rated unsatisfactory (notification of next of kin and the response of emergency medical services).

12-44 Cell Upgrade Project: Construction upgrades to Cells 2, 3, and 4 were completed earlier this year and the facilities declared operational in May. The project to upgrade Cells 5 and 6 is being canceled under the assumption by NNSA that there will be minimal risk to production for the foreseeable future.