

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt, Dave Kupferer, and Rory Rauch, Pantex Site Representatives
DATE: 11 January 2008
SUBJECT: Pantex Plant Weekly Report

DNFSB Staff Activity: R. Rauch has reported to Pantex to begin his site rep duties. J. Deplitch was at Pantex to observe the first week of the W88 SS-21 bay disassembly and inspection (D&I) Nuclear Explosive Safety (NES) Study.

NES Change Evaluation (NCE): On 10 December, production technicians (PTs) were performing an electrical test on a weapon component and the component resistance was found to be out of the specified range. The PTs stopped operations and made appropriate notifications. LLNL provided applicable weapons response information to B&W Pantex on 19 December that was based on bounding, conservative assumptions regarding the potential condition of the anomalous weapon component. B&W Pantex subsequently analyzed the data and declared a positive unreviewed safety question (USQ). This week, NNSA convened an NCE to evaluate the B&W Pantex proposed path forward for processing the anomalous unit. The current plan is to retest the subject unit to gather more information about the anomalous condition. The NES evaluation group has no NES issues with the proposed retest and determined that operations following the retest will be sufficiently safe provided the use of a dielectric cover and bonding strap. The NES evaluation group also stated that probabilistic arguments based on ESD environments that have not been fully or broadly reviewed throughout the NES community should be avoided. The NES community plans to review the W62 ESD environment—on which the aforementioned weapons response was based—during the W62 Operational Safety Review that is scheduled for May. In addition, B&W Pantex is planning to retract its USQ determination based on arguments that the ESD scenario of concern is protected by current operational processes.

NES Staffing: PXSO requested that concurrent NES studies be performed this week on the mobile code management system (CMS) and the W88 SS-21 bay operations. PXSO was subsequently notified by B&W Pantex that they do not currently have the certified NES personnel required to support the two concurrent studies. DOE-STD-3015, *Nuclear Explosive Safety Evaluation Process*, requires the Pantex contractor provide one certified member to each NES study or operational safety review (OSR) group, to which B&W Pantex informally requested a waiver. One of the two B&W Pantex certified NES study group personnel is unavailable this week. PXSO rescinded its request to NA-121.1 to conduct the CMS NES study and the study group subsequently postponed the review pending compliance with the requirements of the standard. B&W Pantex had requested a waiver to the study group staffing requirement last month after completing a security NES OSR without providing a member to the review team.

External Lightning Protection System: During recent high wind conditions, two rotted lightning protection poles that support catenary cables in the Zone 12 material access area (MAA) fell to the ground. There are no technical safety requirements regarding the subject lightning protection catenary cable system. An extent of condition review has been completed and eleven poles were identified as being structurally degraded based on visual and audible tests. Two of the eleven poles have a trajectory that could result in an impact to a ramp should they topple during a high wind event. Short term actions include limitations on personnel traffic in areas where the structural integrity of any pole is determined to be suspect and a restriction on transportation activities when wind speeds exceed 25 mph.