

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: 24 March 2006
SUBJECT: Pantex Plant Weekly Report

DNFSB Staff Activity: W. Von Holle was onsite to observe the second week of the Nuclear Explosive Safety (NES) Study for the B61 SS-21 disassembly and rebuild operations.

Electrical Safety: The Principal Deputy Administrator for NNSA (NA-2) met with Pantex federal employees Thursday to discuss several topics of senior NNSA management focus. Electrical safety was mentioned as a serious concern – complex-wide, but especially at Pantex where a pattern of worrisome events has developed – that needs immediate attention at all NNSA sites. Feedback was solicited on ways to improve contractor performance in this area.

During maintenance last week on an electric boiler in a nuclear explosive facility mechanical room, BWXT technicians were performing a task that had not been adequately evaluated and did not wear the appropriate personal protective equipment. In the process of working on a live 110 volt circuit, the technicians inadvertently caused a short in the controller cabinet creating a small arc flash. There were no injuries or equipment damage.

Proposed NES Standards: One of the key actions that came out of the Top-Down Review of NES requirements was to address concerns with the clarity, scope, and objectives of the three existing NES standards (refer to DOE O 452.2B, Section 4.e.(1)). To ensure the four new proposed standards will work in actual applications, they are being field tested alongside the current standards. The W87 NES study team performed a cursory impact comparison following its recently completed study and found that the number of pre-start findings would nearly triple using the proposed standards with little added benefit to safety. The team perceived the proposed standards to be ambiguous and confusing, would take focus off the goal of preventing detonation and dispersal, and may change emphasis from causes to consequences. The current B61 NES study also plans to evaluate the proposed standards for viability of implementation and the expectation is that the final revised standards will be promulgated next year.

Suspect/Counterfeit (S/C) Hoist Fittings: Two separate but related issues involving S/C hoist components and associated air system fittings were reported this week. As part of the hoist upgrade project, BWXT is in the process of installing new hoists in all nuclear explosive facilities. Twenty-two hoists have been received at Pantex to date, many with suspect components. Ingersoll-Rand has been contacted to provide documentation that parts with “China” and “Taiwan” markings meet purchase order requirements. In addition, hundreds of air system fittings procured to support hoist tie-ins to facility air were found to be non-conforming to the material order specifications. The local supplier’s quality management system will be audited by BWXT next week

Work Document Control: It was discovered this week that W70 operations had been ongoing for about a month without an Engineering Instruction defining lightning controls for processing the sensitive components. The daily protocol is for the Production Technicians (PTs) to check the active procedures and support documents indexed on a local computer terminal before starting work. The subject lightning instruction automatically dropped off the required documents list when it expired last month and was not replaced with the subsequent revision; therefore the PTs were not prompted to check for the procedure. The Process Engineer would normally be notified weeks in advance that the document was to expire and a revision, if necessary, would need to be developed and prepared for loading into the computer database. It appears the turnover of program responsibility from one engineer to another was inadequate.