

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy J. Dwyer, Technical Director
FROM: Timothy Hunt and Rory Rauch, Pantex Site Representatives
DATE: 16 January 2009
SUBJECT: Pantex Plant Weekly Report

Lightning Indirect Effects: A lightning strike to a nuclear explosive facility could create electromagnetic fields internal to the facility, which could couple energy to the weapon. A recent weapon response from the design agency screens the indirect lightning threat during B83 and W87 nuclear explosive operations if tester cables are not attached. If tester cables are attached, B&W Pantex must suspend operations during lightning warnings.

Conduct of Operations: Last week, a nuclear explosive assembly operation was suspended when production technicians (PTs) were unable to complete a cable connection. The production section manager (PSM) determined the cable had been transposed on its longitudinal axis, a violation of the orientation specified in the procedure. The unit was placed in a safe and stable configuration, a recovery procedure has been developed, and operations have restarted. The procedure will be changed to better sensitize the PTs to the correct orientation of the cable.

Unauthorized Material Move: Fourteen source material (depleted uranium) items were moved during an inter-zone transfer without authorization in the Move Right System (MRS). Two containers of ten and six items, respectively, were moved but only one part number from each container was formally dispatched. After numerous similar events last year, a standing order was promulgated that required a second person check to verify the accuracy of the planned material move before dispatching. In this case, the dispatcher failed to implement the second check due to competing distractions. The dispatcher's MRS privileges have been revoked, pending additional training.

W87 Operations: During site rep observations of the W87 disassembly and inspection process, the PTs demonstrated an exceptional knowledge of the process, stringent adherence to person-to-person coverage, scrupulous verification of load paths, and effective communication between reader and workers. The W87 program PTs will be reassigned next week after completing the last war reserve unit work scheduled for FY09.

Electrostatic Discharge (ESD) Control Implementation: It became apparent this week that not all PTs understood the requirements for entry into ESD facilities. Manufacturing management took immediate action to brief all PTs on its expectations regarding implementation of the ESD controls, while a collaborative effort is underway by B&W Pantex to develop and issue written guidance that will provide consistency among the various programs and facilities.

Deluge Fire Suppression System: Fire protection engineering recently completed the corrective actions from the failed deluge system full flow test of January 2008. The deluge spray nozzles in 38 nuclear explosive (NE) bays and cells were replaced with nozzle heads with a larger effective opening. Fire protection engineering will continue to perform the surveillance requirement ensuring that the deluge systems in 52 bays and cells receive a full flow test at least once every three years.

Manufacturing Division Management: One of the five production managers (each supervise an average of 4 PSMs and 60 PTs) moved to an authorization basis position and will not be immediately replaced due to funding issues. Six additional PSMs have recently been hired, addressing a long standing shortage.