

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy Dwyer, Technical Director
FROM: Matthew Duncan and Rory Rauch, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending June 11, 2010

DNFSB Activity: R. Rosen was at Pantex to observe the fourth week of the W84 SS-21 Nuclear Explosive Safety Study.

Weapon Response Application: Last May, B&W requested weapon response from Los Alamos National Laboratory (LANL) after authorization basis (AB) personnel determined that they had made an assumption regarding the application of weapon response that was not within their jurisdiction. AB personnel had assumed the forces applied by a piece of special tooling to a specific W76-1 configuration would be localized; therefore, they determined that certain elements of the weapon response rule were not applicable. In February, B&W declared a potential inadequacy in the documented safety analysis (DSA) as it continued to wait for weapon response to address this unmitigated hazard scenario (see 1/29/10 report). Last week, LANL issued weapon response indicating the original assumptions made by B&W AB personnel were incorrect and increased the consequences of the unmitigated hazard scenario accordingly. The AB department declared a positive unreviewed safety question as a result of this change. B&W submitted the DSA change reflecting the new weapon response this week. Meanwhile, site management has determined that no compensatory measures are needed as the change in weapon response only affects the unmitigated hazard analysis; they still consider the control used during this part of the operation—special tooling that limits the force applied to the configuration—adequate to protect against the postulated hazard.

Procedure Adherence: The Office of Secure Transportation began an offsite shipment of approximately 4,000 lbs of insensitive high explosives without the B&W material handler removing the explosives from the inventory of the originating facility (i.e., dispatching the items from the facility to the trailer), as required by procedure. In preparation for shipment, B&W had staged the trailer, with its full complement of explosive cargo, in front of a Zone 4 magazine. Pantex Material Movement System (PMMS) personnel therefore added the explosive weight of the trailer to the explosive inventory of the magazine, a combined explosive inventory that was an order of magnitude below the magazine's limits. The responsible material handler did not realize she needed to remove the explosive contents of the trailer from the magazine's inventory prior to the initiation of the offsite shipment. This issue was discovered the day after the trailer departed when the material handler contacted PMMS personnel to complete the transaction. PMMS personnel removed the explosives from the magazine's inventory at that time. Transportation department management held refresher training this week on the proper conduct of offsite shipments of explosives.

Test Anomaly: A nuclear explosive did not respond as intended during a tester operation. Technicians immediately placed the unit in a safe configuration and contacted their supervisor. Subsequent investigation by tester design determined the tester was functioning properly. Program management is awaiting direction from the design agency before proceeding.