

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy J. Dwyer, Technical Director
FROM: Timothy Hunt and Rory Rauch, Pantex Site Representatives
DATE: 24 July 2009
SUBJECT: Pantex Plant Weekly Report

DNFSB Staff Activity: B. Laake was onsite to provide site rep support.

SS-21 Startups: The B53 and W84 SS-21 projects—currently scheduled for authorization by December 2009 and September 2010, respectively—will be reevaluated in the coming weeks based on emerging information. B&W Pantex will not submit the B53 Hazard Analysis Report by the scheduled date of 31 July because of a newly postulated hazard. The B53 SS-21 project team is considering several possible process changes to address the hazard and will present its recommendation, with a revised schedule, to PXSO on 6 August. Meanwhile, NNSA has directed the W84 SS-21 project team to add disassembly and inspection activities to the operational scope. The W84 SS-21 project team is working on a schedule revision.

Nuclear Explosive Safety (NES) Change Evaluation (NCE): NNSA convened an NCE to evaluate the pneumatically-driven power-free gas sampler (PGS) as a replacement for the AC-powered Phoenix cart on the B61 program. The NCE group identified a pre-start finding that some modifications of the B61 were incorrectly omitted from the NES rules in the gas sampling procedure. The NCE group concluded that use of the PGS on the B61, including operation during lightning warnings, was not a threat to NES.

Tooling Malfunction: While technicians were raising a canned subassembly (CSA) out of the unit, the lifting fixture lost vacuum at a height of around 4 inches. The CSA retracted about ¼ inch—during which time the safety catches on the fixture contacted the CSA causing minor damage—before it was supported by a bed of air and silicone that remained inside the unit. A technician immediately lowered the lifting fixture onto the CSA to re-apply vacuum. The first line supervisor decided the safest action was to complete the remainder of the CSA removal steps as written in the procedure. The CSA was lifted more than one foot above the partial weapon assembly, a cart was mated to the workstand, and the CSA was lowered onto the cart. The supervisor declared a safe and stable configuration at that time and then contacted all relevant B&W Pantex personnel. They concurred with the safe and stable declaration and supported the course of action taken by the supervisor. Engineering will evaluate the process to determine if procedure or tooling modifications are needed to prevent recurrence.

Transportation of Explosives: Last week, the movement of high explosives (HE) in material access area (MAA) ramps was authorized by an Operations Center (OC) employee without a complete understanding of where nuclear material (NM) was being staged in a transport trailer. The employee assumed that the trailer containing NM was docked at its usual location but it was, in fact, parked at a different dock. A technical safety requirement (TSR) proscribes the movement of certain HE configurations and masses within 100 feet of a closed NM trailer and the more restrictive OC procedure disallows the movement of HE when a trailer loaded with NM is at the subject dock. No TSR control violation occurred in this case since the HE never approached within 100 feet of the NE trailer. Immediate corrective actions are to revise the OC procedure to match the verbiage in the TSR governing the movement of explosives in the Zone 12 MAA and evaluate the Move Right material tracking system for possible incorporation of engineered controls to preclude the movement of explosives while certain materials are located at the docks.