

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 October 1, 2010

DNFSB Activity: B. Laake was onsite to attend training on electrical test equipment.

B53 SS-21 Dismantlement: On September 30, PXSO authorized B53 SS-21 dismantlement operations. In the two weeks prior to authorization, NNSA formally approved the nuclear explosive safety (NES) study and completed the readiness assessment (RA) of B53 operations. The approval memo for the B53 NES study formally concurred with the pre-start finding from the report, which identified three NES deficiencies associated with the portions of the B53 process environments that rely completely on the micarta cap as a load path element (see 8/13/10 and 9/2/10 reports). Subsequent to the transmittal of the approval memo, the B53 NES study group determined that the actions taken by B&W to close NES deficiencies one and two (to incorporate a safety strap as a secondary support feature) were adequate. Actions to correct the third NES deficiency concerning staged end caps will be taken after B&W and Sandia National Laboratories have gathered additional surveillance data on the micarta cap.

PXSO transmitted the final report of the NNSA RA for the restart of B53 SS-21 dismantlement operations this week. The RA team identified one pre-start finding concerning the fact that the B53 workstand did not function as designed during dismantlement demonstrations (the rotocage was not level, per its design definition). B&W performed a causal analysis of the malfunction and found that the misalignment was caused by an undue upward force on the rotocage. The causal analysis team narrowed the cause of the misalignment to two possible mechanisms: technicians using the workstand in an unauthorized manner by applying a downward force during reassembly of the trainer unit or material handlers lifting the workstand by the rotocage during transportation. Corrective actions for the finding include: briefing the technicians on the proper use of the workstand, eliminating transportation activities that rely on the use of the rotocage, and designating trunnion alignment as a recordable feature on the workstand drawing. Pantex management is also investigating whether the processes currently used to maintain configuration management of special tooling in a training environment are adequate.

Special Nuclear Material (SNM) Operations: This week, quality assurance technicians processed a war reserve pit in the integrated pumpdown and fill station (IPFS) for the first time since B&W curtailed SNM component requalification facility (SNMCRF) operations last June to facilitate a technical quality review (see 7/2/10 report). Following the operation, the technicians delivered a surveillance sample of the legacy gas from the pit to the gas lab. The gas lab technicians processed the sample and found no gas in the bottle. Upon discovering this anomaly, the gas lab technicians performed a leak check of the bottle and its valve and both passed leak rate requirements. B&W will hold a causal analysis to determine whether technician error or an equipment malfunction led to the empty sample bottle.

Startup of IPFS leaves the marking station as the only station that has yet to receive approval to resume operations from the technical quality review team. The review team is waiting for Los Alamos National Laboratory to revise the qualification engineering release (QER) to reflect the use of a new etchant salt during marking operations. B&W expects LANL to issue the QER within the next week, at which time the B&W conduct of operations review team can begin to review all SNMCRF stations working in concert.

W84 Disassembly and Inspection (D&I) Operations: Technicians completed the first W84 SS-21 D&I unit this week.