DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 18, 2005

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
SUBJECT: Pantex Plant Activity Report for Week Ending March 18, 2005

Paint Bay Nuclear Explosive Safety (NES) Study . NNSA completed the NES master study of the Paint Bay this week – with a separate element addressing operations specific to the B83 – that was undertaken to authorize nuclear explosive operations to paint weapons and components. The Hazard Category 2 special purpose bay will provide facilities to sand, prime, paint, and cure nuclear explosives. The NESS team identified several pre- and post-start findings and one "special" finding. The special finding deals with the need for a tooling control program NES master study which has not been done for 12 years. The study team believes a NES change evaluation of the tooling program is necessary in the near term to identify any compensatory measures that may need to be implemented until a master study to revalidate the overhauled program can be accomplished later this year. The contractor operational readiness review of the Paint Bay is expected to begin shortly.

Tooling Program Assessment. This week, BWXT began its independent assessment of the rebaselined special tooling program as outlined in the newly revised plant tooling standard and in compliance with QC-1, *Weapon Quality Policy*. BWXT has canceled the compensatory actions – torque verifications and substantiation of authorization basis credited safety features – implemented subsequent to the discovery of loose fasteners found in special tooling in December. NNSA has a shadow team following the contractor's review. Currently, all weapon programs have tooling support and production levels are ramping up.

Cracked High Explosive (HE). BWXT successfully stabilized the unit with the cracked HE on Wednesday, and now awaits further direction from Los Alamos National Laboratory before proceeding with separation, removal, and packaging of the HE. Stabilization activities included disconnecting the vacuum source from the fixture holding the HE hemisphere and taping the area surrounding the crack. Subsequent disassembly actions for this unit may require operations not currently authorized; e.g., additional manual handling of the HE. Any proposed separation process will require a supplemental procedure, weapon response from the design agency, changes to the authorization basis, an unreviewed safety question evaluation, NES approval, and production technician training.

Pit Container Surveillance. The Board requested in Recommendation 99-1, *Safe Storage of Pits*, that DOE implement a system of statistical sampling to verify the continued integrity of the pit containers. BWXT recently issued its AL-R8 sealed insert container surveillance report for fiscal year 2004. The annual report indicates 462 inspections have been performed since implementation began in FY2000. No data collected in FY2004 indicated a significant concern with the SI package or process. A few drums had small amounts of rust, two assemblies had damage to the insulation, and one container had an anomalous gas analysis and moisture reading. Six pits selected as storage samples were removed from the AL-R8/SI assembly for evaluation and the SI vessel interiors inspected with no findings. The Product Realization Team informally agreed to a sample size of 92 for FY2005, of which 75 have been completed to date, followed by an evaluation to determine future sample sizes.