

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 9, 1998

**MEMORANDUM FOR:** G.W. Cunningham, Technical Director  
**FROM:** T. Dwyer and H. Waugh, Pantex Site Representatives  
**SUBJECT:** Pantex Plant Activity Report for Week Ending January 9, 1998

**DNFSB Activity Summary:** Harry Waugh was on site all week. Timothy Dwyer was on site Tuesday thru Friday. Jack Deplitch was on site Monday thru Thursday observing the W79.

**W79 Type 6B Program:** W79 Type 6B dissolution run #2 was performed on Monday. In general, the operation was successful. HE dissolution time was decreased to 8-9 hours from the 12 hours exhibited during run #1, although the overall process remains a 3-shift operation. Part of the time-savings is attributable to increasing the quantity of DMSO used, from 6 to 7 gallons, although the DMSO and hot water operating temperatures remain unchanged (150°F and 175°F, respectively). Three new tools were satisfactorily demonstrated: a wing displacement tool, scraper brushes, and a girdle separator tool. Three crews of PTs, one for each shift, have been trained. The operation demonstrated that the PTs are still becoming familiar with the HE dissolution process (e.g., some uncertainties were evident in their attempts to evaluate the status of HE dissolution), although they seemed proficient with the workstation and tooling. The dissolution process continues to evolve -- there were many pen and ink changes to the NEOP during the operation. Additional Type 6B operations would be very beneficial, although no further Type 6B unit operations at Workstation 1 are planned prior to the WR SIRR. (Type 6B unit operations are planned for Workstations 2 and 3 prove-in.) Process improvement recommendations are being considered for test and demonstration during the Workstation 2 and 3 prove-in, but no process improvements will be made before review and approval of WR operations at Workstation 1. The present path forward is: WR SIRR January 20<sup>th</sup>-23<sup>rd</sup>, NESS commencing February 9<sup>th</sup>, and first dismantled unit (FDU) commencing March 16<sup>th</sup>.

**Fire Protection:** A loss of control of the High Pressure Fire Loop (HPFL), which is a Critical Safety System, was discovered Wednesday. Fire protection to 12-98 Cells 1 and 3 was disabled when a normally locked-open valve was unlocked, unsealed, shut, relocked, and resealed between October 9<sup>th</sup> (last documented flow test) and this week. During that time, a W80 C/D and a W79 Type 6B dissolution were conducted. A 100% HPFL walkdown has confirmed no other valves are out of position. M&H will be conducting a Type "C" investigation. In the interim, AAO has issued a letter directing M&H to validate that redundant HPFL protection is available at all Zone 12 South facilities, and place those that fail this validation in repair mode pending implementation of compensatory measures. Several other issues have been raised by this event:

- The current means of validating HPFL operability (as a critical safety system) using in-cell/bay HPFL pressure indicators during pre-operational checks is insufficient.
- Lockout/Tagout Program (Standard 3118) is not consistently followed for HPFL work.
- HPFL valve operations and keys are not adequately controlled.
- HPFL repair work is not adequately prioritized. (The redundant half of the 12-98 HPFL has been out of service for repair since July 24, 1996.)
- HPFL as-built drawings are not correct.

**Accelerated Aging Units (AAU):** Representatives from DOE-AL, AAO, LANL, SNL/NM, LLNL (Tri-Lab), and M&H held an AAU meeting Thursday. DOE-AL WQD (Levine) defined a need for the AAU program, indicating every effort will be made to fund it. LANL and SNL/NM also emphatically expressed support for resuming this program. LLNL apparently believes sufficient aging information can be obtained from core samples, but is being pushed to support this effort. LANL also presented a new AAU chamber concept.

## **Attachment**

### **Upcoming Pantex Events:**

January 13 -- Quarterly NMO Program Meeting

January 13 -- W76 HATT External Events Meeting (Albuquerque)

January 14 -- W87 ASSET (Graded SS-21) Meeting (local/mid-management)\*\*

January 14 -- Quarterly Production Meeting

January 20-23 -- W79 WR SIRR\*\*

January 21 -- W87 LEP Meeting\*\*

January ?? -- Secretary of Energy visit [date TBD]

January 23 -- W56 Project Team Meeting

January 29 -- W87 ASSET (Graded SS-21) Executive Management Team Meeting\*\*

February 9 -- W79 NESS starts\*\*

February 24-March 6 -- B61-11 NESE

March 9-27-- NES Electrical Tester Master Study completion

March 16 -- W79 FDU

[unknown] -- W56 SIRR [delayed due to resource conflict w/ W79]

NOTES: \*\* highlights events which are new listings or for which schedule has changed