

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 16, 1999

**MEMORANDUM FOR:** G. W. Cunningham, Technical Director  
**FROM:** T. Dwyer and H. Waugh, Pantex Site Representatives  
**SUBJECT:** Pantex Plant Activity Report for Week Ending April 16, 1999

**DNFSB Activity Summary:** H. Waugh and T. Dwyer were on site all week. W. White was on site Monday for a lightning meeting. M. Forsbacka was on site Monday-Thursday for the PT-4174 NESS. C. Martin was on site Tuesday-Thursday for a lessons learned seminar.

**W56 Dismantlement Program:** Monday morning, PTs attempted to loosen the primary-to-secondary joint on the 3<sup>rd</sup> W56 unit. They were not successful. Redesigned removal tooling was received [early] from the vendor, and DOE-AL NESD concurred that it falls within the existing AB, and, as a trivial change, could be approved for use by the contractor NESS organization. On Thursday, and again on Friday, PTs applied the tooling to unit #3, but were unable to loosen the joint, in part due to slippage of the gripper. As a result, several M&H engineers and the LLNL W56 representative will visit Oak Ridge next week to gather more information on the materials involved and potential aging effects. M&H has also identified a W56 that has never undergone D&I, and will attempt to dismantle this unit with the current Dismantlement Program tooling, followed, if necessary, by the redesigned removal tooling.

**W56/W87 Lessons Learned Seminar:** DOE convened a seminar designed to bring together the project teams and line management from the W56 and W87 programs with those project teams currently working to upgrade their weapons programs. It is significant to note that the incoming DOE-AL Manager considered this seminar to be of sufficient importance to attend it in its entirety. A report on this seminar will be filed under separate cover by the Board staff.

**PT-4174 Tester NESS:** A limited-scope NESS for proposed use of the PT-4174 electrical tester during W88 and W62 operations convened Monday-Wednesday. The PT-4174 is a current-limited, battery-powered tester for use on cable assemblies that run through the warhead (along the aeroshell) on the W62 and W88 systems. The HARs provided to the NESS group were limited in scope, detailing only those activities involving the PT-4174 for both systems. It should be noted that the W62 program is in a suspended state because its NESS is expired, so this limited-scope NESS considered draft documents for the W62 program. Overall, the NESS was conducted in a professional manner, and the NESS group pursued relevant questions with appropriate vigor. One topic of particular interest was the suspension of testing during lightning warnings. The HARs recommended suspension of testing during lightning warnings for both the W88 and W62 programs. The PT-4174 test does not directly involve sensitive components, but the W62 program suspends PT-4174 testing to maintain a consistent lightning/testing protocol. The W88 Project Team disagreed with the HAR recommendation. The NESS group determined that the PT-4174 did not increase the potential for defeating the stand-off distance required to prevent direct coupling of a lightning strike, and will probably recommend that testing be allowed during lightning warnings. A question of lightning-induced electromagnetic pulse (LIEMP) was also raised, but conclusive information characterizing a possible threat was not available. The NESS group will probably recommend further investigation into LIEMP.

**Contractor Changes:** M&H announced Tuesday that (pending stockholder approval) it would merge with and become a wholly-owned subsidiary of Day and Zimmermann. In the meantime, the Secretary of Energy had authorized DOE-AL to extend the M&H contract through June 30, 2001, exercising the option year clauses of the contract.