

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 30, 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 October 30, 1998

DNFSB Activity Summary: T. Dwyer and H. Waugh were on site all week. C. Martin and W. Von Holle were on site Tuesday and Wednesday reviewing IHE/CHE safety bases.

Recommendation 98-2: Tuesday, the Pantex Plant Citizen's Advisory Board (PPCAB) discussed Recommendation 98-2, at the request of several of the PPCAB and ex-officio members. AAO distributed an unclassified briefing sheet that included a layman's version of the 6 sub-recommendations. The Site Reps emphasized that the briefing sheet presented AAO's interpretation of 98-2, and that the Board was meeting with DP-1 to resolve whether the full, unedited text of 98-2 could be released. AAO stated that several independent initiatives, already underway, were applicable to 98-2. The Site Reps highlighted the facts that: 1] assuming 98-2 is accepted by the Secretary of Energy, the Implementation Plan developed to address it becomes a Secretarial level commitment to action; 2] the key subrecommendation (#6), emphasizes the need to address all of the subrecommendations as a whole, to bring weapons programs more in line with Recommendation 95-2. PPCAB members asked if 98-2 had resulted in AAO stopping any work. AAO responded "No." The Site Reps explained that the focus of 98-2 was future activities -- while present work has not been stopped, the course of future work will be altered.

IHE/CHE Safety Bases: Board staff conducted a comparative review of the safety bases for insensitive high explosive (IHE) and conventional high explosives (CHE). Because of the limited number of IHE tests performed to date, it has not been possible to develop an adequate statistical evaluation. No hazard analysis has been developed to specifically address IHE operations in bays. AAO/M&H assumptions of negligible probability of a violent reaction during IHE operations rests on expert opinion based on the limited tests, which, in most cases, provide limited data, although some degree of safety margin is introduced by using significantly higher-energy initiating events (overtesting). Board staff also reviewed the recently identified HE aging concern (see weekly letter of October 2nd). LANL processing restrictions are still in effect, pending further analytical/sensitivity tests. Based on a LANL evaluation of HE formulation details, abnormal results are not expected -- these tests are an added precaution.

Year 2000 (Y2K) Program: Board staff made a brief assessment of efforts by M&H to evaluate and resolve Y2K compliance problems with equipment having a safety-related function. The methods used by M&H to identify, evaluate, remediate, test, and validate potentially noncompliant systems generally appear to be very good. The site found, for example, that some blast-door interlocks, which are safety significant systems, will need to be replaced due to Y2K incompatibility. M&H has some concern with emergency operations and contingency planning, which lack guidance from DOE-HQ, and with independently verifying that off-site support functions (e.g., power, telecommunications) will not be disrupted. Detailed test and validation reports on several safety-related systems will be provided to the Board staff for further evaluation.