

John T. Conway, Chairman
A.J. Eggenberger, Vice Chairman
Joseph J. DiNunno
Herbert John Cecil Kouts
John E. Mansfield

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

625 Indiana Avenue, NW, Suite 700, Washington, D.C. 20004
(202) 208-6400



CONFIDENTIAL March 4, 1998

The Honorable Federico Peña
Secretary of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585-1000

Dear Secretary Peña:

The safety of weapon dismantlement and surveillance activities is dependent, to a significant degree, on the properties of main charge high explosives. The staff of the Defense Nuclear Facilities Safety Board (Board) has completed a review of the Department of Energy's (DOE) surveillance program for weapon main charge high explosives. The enclosed classified report incorporates information from visits to the DOE Albuquerque Operations Office, Pantex, and the Los Alamos and Lawrence Livermore National Laboratories.

The Board notes that high explosives are complex composite materials with the potential for age-related changes that affect safety as well as reliability, and that surveillance has become increasingly important as stockpile lifetimes are extended. Indeed this has been a driver for DOE's implementation of the Enhanced Surveillance Program to supplement the traditional surveillance process. The Board supports this effort and understands its importance to the surveillance program and the safety of weapons at Pantex. However, some elements of the core program could be improved, such as increasing the high explosive (HE) sampling frequency for weapons awaiting dismantlement, to detect changes in HE properties.

The Board is encouraged by DOE's actions to improve the surveillance process and anticipates that this classified report will be of help in your continuing efforts in this regard.

Sincerely,

John T. Conway
Chairman

c: The Honorable Victor H. Reis w/encl
Mr. Mark B. Whitaker, Jr. w/o encl

Enclosure

When separated from enclosures
handle this document as
UNCLASSIFIED.

CONFIDENTIAL