

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 17, 1995

MEMORANDUM FOR: G. W. Cunningham

COPIES: Board Members

FROM: W. Yeniscavich

SUBJECT: Shipping Weapons from Pantex to Department of Defense
Facilities to Remove Reservoirs

1. **Purpose:** The purpose of this memorandum is to highlight the Department of Energy-Albuquerque (DOE-AL) practice of shipping weapons at Pantex back to Department of Defense (DoD) facilities for removal of the tritium reservoirs.
2. **Summary:** In the last year DOE-AL shipped five weapons from Pantex back to DoD for removal of reservoirs. Shipping weapons back to DoD for removal of reservoirs exposes the weapons to two additional moves and increases accident and handling risks. Better management of the weapons disassembly program at Pantex by DOE-AL could have avoided these extra shipments.
3. **Background:** The Defense Nuclear Facilities Safety Board (Board) site representative at Pantex reported in March 1995 that DOE-AL was shipping a B61-0 weapon to DoD for removal of reservoirs by DoD personnel. The reservoirs had not yet reached their expiration dates, but Pantex could not remove the reservoirs before they expired.

In October 1995, the Board's site representative at Pantex reported that DOE-AL had decided to send additional weapons back to DoD for removal of reservoirs which were close to expiration. There are also approximately one dozen weapons at Pantex with reservoirs that are due to expire before planned disassembly.

4. **Discussion/Observations:** The shipment of weapons from Pantex back to DoD facilities for the removal of reservoirs exposes the weapons to additional handling and shipping risks. Every possible effort should be made to avoid or minimize the shipping of weapons. However, the number of weapons being shipped back to DoD is increasing, and it appears that shipping weapons back to DoD for removal of reservoirs may become an accepted practice.

The problem seems to be the lack of incorporating reservoir expiration dates in the overall plan for weapons disassembly and other work at Pantex. Reservoirs are normally removed from weapons during disassembly. However, in cases where the reservoirs will expire before the

scheduled disassembly, no actions are taken until about two months before the reservoir expiration date. With such short notice the only viable option is to ship the weapons back to DoD for removal of the reservoirs.

Pantex is in the process of identifying all weapons in their possession that contain reservoirs and the reservoir expiration dates. (Some reservoirs are removed by DoD prior to shipping the weapon to Pantex.) This information will permit better overall planning and allow time for training, special procedures, relocation of qualified personnel to Pantex, or other measures to be taken to avoid shipping weapons back to DoD for reservoir removal. The specific actions to be taken at Pantex remain to be identified.

A long range action is to have DoD remove all reservoirs from weapons scheduled for disassembly prior to shipping the weapons to Pantex. This practice was instituted for B61-0 weapons in Alt#337, issued November 1994. For other weapons the practice is to remove reservoirs prior to shipment to Pantex only if the reservoirs are within one year of their expiration date. This long range action of removing all reservoirs, prior to shipment of weapons to Pantex, has been discussed by DOE-AL, but it has not been implemented.