

[DOE LETTERHEAD]

June 26, 1996

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW
Suite 700
Washington, D.C. 20004

Dear Mr. Chairman:

This is an interim reply to your letter to Mr. Thomas P. Grumbly of June 17, 1996, transmitting the March 28, 1996, trip report of your staff's review of Hanford tank safety issues and inactive facilities.

The Richland Operations Office and Headquarters are working together to address each of the observations in detail. We will provide a response to each of your questions by July 31, 1996.

We appreciate your observations. One of our seven principles is to eliminate the most urgent risks. Tom Grumbly and I share the goals of having the Department proactively identify our problems, take ownership, and do the right things. We are committed to working with John Wagoner and his management team to ensure that the ongoing safety improvements and reengineering efforts at the Hanford Site are comprehensive and timely.

Sincerely,

Alvin L. Alm
Assistant Secretary for Environmental Management

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 28, 1996

MEMORANDUM

FOR:	G. W. Cunningham, Technical Director
COPIES:	Board Members
FROM:	Cliff Moore
SUBJECT:	Trip Report - Review of Hanford Tank Safety Issues February 21-22, 1996

1. **Purpose:** This trip report documents a visit by the Defense Nuclear Facilities Safety Board's (Board) staff members (Ralph Arcaro, Cliff Moore, Lani Miyoshi, and Richard Tontodonato) to the Hanford Site on February 21-22, 1996, to review safety issues for

the high-level waste tanks.

2. **Summary:** Review of the Tank farms safety issues focused on specific Board staff concerns resulting from recent authorization basis discussions. Because inactive facilities containing radioactive material pose similar safety issues, they were included in the review. The staff review team made the following significant observations:
 - a. Lightning continues to be a credible tank deflagration initiator and requires a comprehensive assessment to determine adequate mitigation.
 - b. Westinghouse Hanford Company (WHC) intends to write a topical paper on flammable gases to address inconsistencies among hazards analyses, references, and associated technical reports. While WHC states that this report will provide support for the development of the tank farms Final Safety Analysis Report (FSAR), its September 1996 release date makes this seem unlikely.
 - c. WHC has recommended adding nine tanks to the Flammable Gas Watch List (FGWL) based on atmospheric pressure correlations that involve unquantified uncertainties and have not been validated through controlled tests with actual waste. Although recommending the addition of these tanks is conservative, the staff believes WHC should further investigate the technical bases for current gas screening models to develop a definitive method for identifying tanks for addition to the FGWL.
 - d. WHC is reevaluating plans to salt well pump the liquid phase from tank 241-C-103 without first removing the organic liquid layer. WHC's principal concern is that saturating the sludge with organics during salt well pumping would affect future sludge processing.
 - e. Hanford has several long-inactive facilities that still contain radioactive material and waste. In most cases, the current condition of these facilities is not well known. The configuration and contents of these facilities need to be determined to adequately address safety issues such as flammable gases and spread of contamination.