

[SOE LETTERHEAD]

May 16, 1990

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
600 E Street, N.W., Suite 675
Washington, D.C. 20004

Dear Mr. Chairman:

I have received your letter of March 27, 1990, which identified four recommendations concerning the safety of the single-shell tanks located at the Hanford Site. These recommendations were discussed with the Defense Nuclear Facilities Safety Board (DNFSB) members and consultants on April 10, 1990. I agree with and accept your recommendations. The Office of Environmental Restoration and Waste Management is in the process of developing specific implementation plans.

Regarding a related matter, the Department of Energy Headquarters (DOE-HQ) has performed a number of investigations into the gas generation issue raised during your March 20-21, 1990, visit to Hanford. In early April, an investigation team consisting of technical experts was sent to Hanford, to evaluate hydrogen gas generation. The team examined a hydrogen explosion below the waste crust and estimated that the probability of combustion was low; however, if such an explosion were to occur, the primary tank might sustain damage. The preliminary analysis of this scenario indicated that the secondary containment unit, an underground, steel-lined, reinforced-concrete vault would not be likely to sustain damage. We are further assessing the chemical makeup of the tank to determine if there might be any further synergistic effects from a hydrogen explosion.

In addition, the Office of Nuclear Safety (MS) and the Office of the Assistant Secretary for Environment, Safety, and Health (EH) have conducted an extensive independent review. The DOE Richland Operations Office (DOE-RL) has prepared a Safety Improvement Plan for the double-shell and single-shell tanks. This plan addresses safety issues raised by the DOE-HQ investigation team and the DNFSB. Issues raised by MS and EH will be incorporated into a final plan. The Office of Environmental Restoration and Waste Management is forming a tank advisory panel to ensure that recommendations generated as a result of the independent reviews conducted to date are adequately addressed in DOE-RL plans.

It is our desire to incorporate the results from all these reviews in our response to your recommendations.

Sincerely,

James D. Watkins
Admiral, US Navy (Retired)