



The Deputy Secretary of Energy

Washington, DC 20585

September 8, 2010

The Honorable Peter Winokur
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW, Suite 700
Washington, DC 20004-2901

Dear Mr. Chairman:

On August 6, 2010, you requested that the Department of Energy (DOE) respond to questions regarding plans and processes for the Waste Treatment and Immobilization Plant (WTP) being designed and constructed at the Hanford site. The DOE's responses to your questions are enclosed.

Enclosure 1 provides brief position papers on each of the five technical issues identified in your letter and the Federal Register Notice announcing the Public Meeting. Specifically, these papers address the following:

- 1) Changes in safety-related design criteria resulting from modification of the material at risk;
- 2) Changes in design strategy to address hydrogen in pipes and ancillary vessels;
- 3) Criticality safety concerns and other safety-related risks for the pulse jet mixing system;
- 4) Reclassification of safety-related systems, structures, and components; and
- 5) Safety-related design aspects of facilities or modifications of existing facilities needed to deliver high-level waste feed.

Enclosure 2 provides a crosswalk between these 5 issues and the individual questions of the 23 provided in the enclosure to your letter. In some cases a specific question may be listed under more than one of the five issues, since it supports multiple issues.

Enclosure 3 provides the following:

- Definitions of selected key terms (e.g., margin-of-safety, safety-related design risk) to ensure a common basis of understanding in the responses;
- Detailed responses to each of the 23 questions posed in your August 6 letter;
- Identification of each author, affiliation, and title of responses; and
- As needed, an opening/summary-level statement for selected question responses based on the need to establish the necessary framework or context for the response.



DOE will continue to provide additional support to the Board in preparation for the Public Meeting. If you have any further questions, please call me or Dr. Inés R. Triay, Assistant Secretary for Environmental Management, at (202) 586-7709.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'D. B. Poneman', with a long horizontal flourish extending to the right.

Daniel B. Poneman

Enclosure 1 Enclosure 2 Enclosure 3

cc: M. Campagnone, HS-1.1
I. Triay, EM-1