



## Department of Energy

Washington, DC 20585

The Honorable A.J. Eggenberger  
Chairman  
Defense Nuclear Facilities Safety Board  
625 Indiana Ave, NW, Suite 700  
Washington, DC 20004

Dear Mr. Chairman:

Thank you for the opportunity to brief the Defense Nuclear Facilities Safety Board (DNFSB) on June 7, 2007, regarding the progress of the Sodium Bearing Waste (SBW) Treatment Project (also called the Integrated Waste Treatment Unit) under the Idaho Cleanup Project.

The SBW Treatment Project has completed the geotechnical investigation and development of the site-specific soil response spectrum and documented the results in a Geotechnical Report which was recently provided to your staff for review. The results of these activities have also been reviewed by a Blue Ribbon Panel (BRP) of industry experts. The BRP has completed their report documenting their conclusions, which generally endorsed the analyses in the Geotechnical Report.

During our meeting with you on June 7 we also discussed the current structural design results for the Process and Packaging Cell (PPC), as the structural design for this part of the facility has also been the subject of the BRP reviews. The existing PPC foundation design remains conservative based upon the results of these reports.

We discussed the project status and path forward for design and construction activities. The PPC foundation design has conservative margins, is mature, and we expect to proceed with current plans to receive and place rebar, embeds, and form work by the end of June 2007.

As was discussed at the briefing, additional reviews are underway for the balance of the facility design which includes data uncertainty determinations and evaluation of the results of an assumption that sets the vertical acceleration equal to the horizontal acceleration. It is anticipated that this analysis will confirm that existing design margins will remain conservative.



I am also forwarding an enclosure which apprises you of our progress in addressing the topics you identified in your January 24, 2007, letter. All of these topics will be fully briefed with your staff, including the incorporation of post-seismic monitoring capability, during the week of July 16, 2007.

We appreciate the timely cooperation of the DNFSB and its staff to support us to move forward with construction of the SBW Treatment Project. If you have any further questions, please call me at (202) 586-0738.

Sincerely,

A handwritten signature in black ink that reads "Inés Triay". The signature is written in a cursive style with a prominent flourish at the end of the name.

Inés R. Triay  
Chief Operating Officer for  
Environmental Management

Enclosure

## Enclosure

### Status of DNFSB January 24, 2007, Letter on Issues with Sodium-Bearing Waste Treatment Project

- Distributed control system (DCS) design, including: 1) fail-safe logic that places the steam reforming process in a safe configuration following control system failure, and 2) rapid shutdown system sensitivity to safety-related operating parameters.

Status: The DCS design for fail-safe logic is progressing, with parameter limits being determined. Set points and sensitivity analysis are pending vendor inputs.

- Completion of the pilot plant mercury adsorber bed over-temperature event investigation and development of an adequate control set to prevent recurrence in the full scale Integrated Waste Treatment Unit, as well as completion of the analysis of pilot plant testing results for the mineralized waste form, including assessment of the ability of the existing facility design to accommodate any needed process design changes to allow utilizing this waste form if needed in the future.

Status: Both the Granular Activated Carbon Bed and Hazen Pilot Plant Mineralized Test reports have been issued by the contractors for DOE review and will be issued by June 29, 2007.

- Validation that the radionuclide assumptions in the safety basis are accurate, either through completion of sampling or through batch feed sampling requirements.

Status: Feed tank radionuclide assumptions have been confirmed to be bounding, based on the previous sampling results from VES-WM-189, and the preliminary results received the week of June 22, 2007 from sampling of VES-WM-187 (a final report is expected in mid-July). VES-WM-188 is expected to be bounded by the WM-189 results and will be confirmed by sampling scheduled to start the week of June 25, 2007. Final results from WM-189 are expected in September 2007.

- Routine configuration management of important safety documents, e.g., the Preliminary Documented Safety Analysis (PDSA) report, to ensure safety requirements are properly incorporated during final design.

Status: The project has been consistent with maintaining configuration control for important document updates, as exemplified by the PDSA updates already submitted to reflect the CD-3 design maturity.