



# HANFORD ADVISORY BOARD

A Site Specific Advisory Board, Chartered under the Federal Advisory Committee Act

**Advising:**

US Dept. of Energy  
US Environmental  
Protection Agency  
Washington State Dept.  
of Ecology

June 13, 2019

**CHAIR:**

Susan Leckband

**VICE CHAIR:**

Shelley Cimon

Brian Vance, Manager  
U.S. Department of Energy, Office of River Protection  
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Re: DOE's Enhanced Waste Glass Program

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Dear Mr. Vance,

**Local Environment**

Gene Van Liew

The Hanford Advisory Board (HAB/Board) wishes to applaud the U.S. Department of Energy (DOE) for the work it has done over many years to continue improving glass formulation knowledge as we near the start of tank waste treatment. The Board believes this has been a wise investment in research and institutional capacity that has already served to shorten the projected Hanford mission and has the potential to lead to extraordinary further reductions in the amount of time, money, and infrastructure required to accomplish a quality cleanup.

**Regional**

**Environment/Citizen**

Shelley Cimon  
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Susan Leckband  
Todd Martin

During the Board's March 2019 Tank Waste Committee meeting, the Committee received a presentation from Albert Kruger, DOE's only Glass Scientist, on DOE's Enhanced Waste Glass Program. This presentation outlined DOE's plans to develop time-saving and technically defensible methods for testing its glass product; to institute processes during Waste Treatment Plant (WTP) operations that would allow timely generation of quality glass, utilizing science and technology that will reduce risk and assure the public and regulators of the durability of glass over time. Mr. Kruger also reported on DOE's successes in finding significant new efficiencies in the amount of waste that can be loaded into every container and canister of glass, and achieving greater efficiencies (i.e., throughput) from the glass production facilities. The HAB is hopeful that continuing program activity will, at some point, spare EM from the need for a Supplemental Low-Activity Waste facility as identified improvement efforts continue to be pursued.

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In May, members of the Board participated in a tour of the Hanford Site. One of the stops on the tour was the Applied Process Engineering Laboratory (APEL). While there, Mr. Kruger described some of capabilities of the glass development laboratory. It was noted that it is no simple feat to bring waste glass innovations out of the lab and into production. The HAB believes it is critical that glass development research continues through the operational

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start-up of the WTP. Lessons learned through this iterative glass making experience can be incorporated into further improvements in glass operations.

The Board understands the role of Glass Scientist will soon turn over as Mr. Kruger retires within the next few years. It has come to our attention that no one is currently being trained to step into the lead of this critical program. This is a story that will be often repeated in the next several years as the torch of technical responsibility for Hanford cleanup is passed to the next generation. This kind of loss of technical expertise could potentially destabilize a robust program for Hanford, DOE, and for public assurance of WTP Operations. We hope that succession planning will be addressed.

Please thank Mr. Kruger on behalf of the Board for all of his excellent work.

Sincerely,



Susan Leckband, Chair  
Hanford Advisory Board

Enclosure

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cc: Albert Kruger, U.S. Department of Energy  
Ben Harp, U.S. Department of Energy Office of River Protection