Washington State Department of Ecology 3100 Port of Benton Boulevard Richland, WA 99354



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SEP 18 2025

September 14, 2025

Washington State Department of Ecology 3100 Port of Benton Boulevard Richland, WA 99354 Department of Ecology NWP - Richland

Dear Department of Ecology:

The U.S. Department of Energy (DOE) is holding a 60-day public comment period and meeting on a proposed Class 2 permit modification to the Hanford Dangerous Waste Permit. If approved, the modification would allow Bechtel National Inc. (BNI) to conduct environmental performance demonstration tests at the Waste Treatment and Immobilization Plant (WTP). A temporary authorization request was also submitted with this modification to allow testing in a single melter configuration. The temporary authorization allows the testing to be conducted in tandem with the comment period.

Under the proposed permit change, Bechtel National Inc. (BNI) would conduct tests using each melter separately before conducting dual melter tests. With a temporary authorization approved, BNI can continue work toward the Oct. 15 hot commissioning timeline recently agreed to by the state. Comments are due by November 1, 2025, apparently too late to be considered before hot commissioning.

1. I would appreciate if Ecology will ensure that the results taken from samples will "close" the mass balance, so there are no assumptions about where the chemical and radioactive hazards reside or are absent. For example, the LAW melters will produce methyl cyanide (acetonitrile) in the off gas, but some will be condensed and become part of liquid effluents, and acetonitrile is not part of the feed. Exhaust gas sample fraction analysis is not sufficient. Some could accumulate in the LAW vessels and systems and be a growing risk for later. Ecology should require the quantification of all inlet, outlet, and accumulated streams so that there are no surprises at ETF or PFNW in the air or liquids. This approach should apply to all chemicals and isotopes of concern. A diagram with the results, checked by QA, would be helpful. Please note that the LAW facility never had an integrated pilot plant. Prior "pilot plant" type results were cobbled together from a variety of disconnected facilities. Additional sampling might mitigate some of the surprises to come.

Thank you for the opportunity to comment.