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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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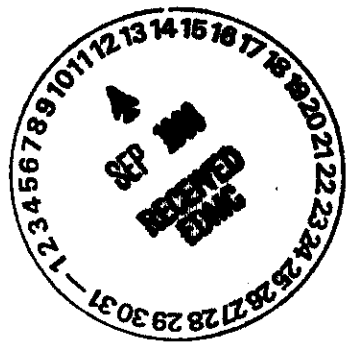

Mr. Rich Holten
U.S. Department of Energy
P.O. Box 550, MSIN: H0-12
Richland, WA 99352

Dear Mr. Holten:

Re: Additional Funding For Hanford Groundwater/Vadose Zone Investigations

The Washington State Department of Ecology (Ecology) would like to thank the U.S. Department of Energy (USDOE) and its contractors for their groundwater and vadose zone budget presentation on August 20, 1998. Unfortunately, not all individuals responsible for the groundwater and vadose zone work from Ecology were present. However, we, as Ecology's two Tank Waste Remediation System (TWRS) Project Managers, would like to provide input as requested by USDOE during the meeting.

We believe that any attempt on the part of USDOE to obtain additional funding to address the serious and immediate groundwater and vadose zone issues at Hanford deserves our support. As TWRS Project Managers, we recognize the importance and immediacy of these issues and fully support all attempts to obtain additional and pertinent data on the fate and transport of contaminants through the vadose zone and groundwater and for the ultimate protection of the Columbia River. However, Ecology, along with USDOE, Indian Nations, Oregon Department of Energy, and other stakeholders, agreed in the *Tank Waste Remediation System Vadose Zone Program Plan, DOE/RL-98-49, revision 0, July 1998* (Program Plan) that a minimum funding level of $11.6 million was necessary in fiscal year 1999 to address TWRS vadose zone issues.

The information provided by USDOE at this, and subsequent, meetings indicate that USDOE has failed to support the workplan agreed upon by the various parties involved in the evolution of this document. Important elements of the agreed upon workplan that are not currently being funded in fiscal year 1999 are included in Enclosure 1. Therefore, although Ecology supports any attempt by USDOE to expand the funding provided to address groundwater and vadose zone issues, Ecology cannot provide unqualified support for any funding decisions that provides less than the $11.6 million agreed upon in the Program Plan.

Mr. Casey Ruud of our Kennewick Office has been designated as the Ecology representative for all sitewide groundwater/vadose zone issues. If you would like a sitewide perspective from Ecology on this issue, Mr. Ruud can be contacted at (509) 736-3022. If you have any questions concerning Ecology's TWRS perspective on this issue, please contact either Suzanne Dahl (Disposal) at (509) 736-5705, or Alex Stone (Storage) at (509) 736-3018.

Sincerely,

Suzanne Dahl, R.G.
TWRS Disposal Project Manger
Nuclear Waste Program

Dr. Alex Stone
TWRS Storage Project Manager
Nuclear Waste Program

AS/SD:sb
Enclosure

cc: Douglas Sherwood, EPA
Dana Bryson, USDOE
Jackson Kinzer, USDOE
Jim Poppiti, USDOE
Mike Thompson, USDOE
Mary Harmon, USDOE-HQ
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Edward Fredenburg, LMHC
Merilyn Reeves, HAB
Stuart Harris, CTUIR
Stan Sobczyk, NPT
Barbara Harper, YIN
Mary Lou Blazek, OOE
Administrative Record: SST Vadose Zone Characterization

Enclosure 1

TWRS Vadose Zone Program Plan FY 1999 Funding Requirements vs the TWRS Component of the Sitewide/Groundwater Vadose Zone FY 1999 Funding Level

The TWRS component of the ***current FY 1999*** Sitewide Groundwater/Vadose Zone/Columbia River budget totals $4.8M. The TWRS Vadose Zone Program Plan estimates that a vadose zone characterization program that meets minimum requirements would total $11.6M. The resulting shortfall of $6.8M for TWRS vadose zone characterization is unacceptable to Ecology.

The Sitewide Integration Project budget for TWRS activities does not coincide with the Program Plan estimates in either the descriptions of the activities or the corresponding funding levels. The breakdown for TWRS activities as provided by the **Sitewide Integration Project** FY 99 funding document is as follows:

1.	Characterization Plan (300K in FY 98)	200K
2.	Initial Vadose Zone Characterization, 1 tank farm	2,000K
3.	Decommission SX Borehole	500K
4.	Corrective Measures	650K
5.	Retrieval/closure alternatives model	100K
6.	Geophysical Logging and Analysis	1,350K
	Total	4,800K

Discrepancies between the Vadose Zone Characterization Activities and funding requirements identified in the TWRS Vadose Zone Program Plan for FY 1999 and the TWRS activities and budget identified by the Sitewide Groundwater/VZ/CR Integration Project for FY 1999 are as follows:

		TWRS	Sitewide
1.	Corrective Measures Test water lines; Seal abandoned groundwater monitoring wells, cap boreholes; Gather data on tank farm surface water runoff and ponding; Conduct studies and field testing for interim surface barriers.	1,000K	650K
2.	Prepare Detailed Characterization Work Plan Develop a characterization plan that details the process for evaluating existing data, identifying data gaps, identifying and prioritizing locations for sampling, identifying characterization methodologies and estimating costs.	500K	200K
3.	Analyze Historic Gross Gamma Logging Data Develop plots of activity over time, by borehole	300K	0K

4. Conduct Supporting Analyses for Initial Characterization Campaign Estimate contaminant inventory in past leaks; Estimate leak volumes based on evaluation of process history; Evaluate process history and estimated liquid and contaminant discharge for TWRS cribs and trenches.	200K	0K
5. Initiate Characterization of Impacted Locations (Plumes) Drill and sample in impacted locations using the techniques specified in the Characterization Plan.	6,000K	2,00K
6. Compile and Evaluate Data/Update Work Plan Data Analysis to update the conceptual model and the characterization work plan.	300K	0K
7. Develop System Model Develop and utilize computer simulation tools to estimate the environmental impact of TWRS Storage retrieval and closure actions (Retrieval/Closure Alternatives Model)	500K	100K
8. Complete Baseline Spectral Gamma Borehole Logging	1,300K	1350K
9. Maintenance of RCRA Groundwater Monitoring Well Network Maintenance of existing groundwater wells and drilling of new wells to reach and/or maintain compliance.	200K	0K
10. Develop and Deploy Improved Technologies Develop and deploy technologies that have improved sensitivity, resolution and are more efficient.	400K	0K
11. Conduct External Scientific Peer Reviews Continue the scientific peer review process using external scientists selected by the Hanford GW/VZ/CR Integration Project.	400K	0K
Totals	**11,100K**	**4,300K**

The only element in the TWRS Program Plan that was the same in the ***sitewide*** funding breakdown and therefore, was not included in the comparison of the two funding scenarios was the $500K that will be used to decommission borehole 41-09-39.