



0056012

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

1315 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7587

December 19, 2001

RECEIVED  
DEC 26 2001

Mr. George Sanders, Director  
Waste Management Division  
U.S. Department of Energy  
Richland Operations Office  
P.O. Box 550, MSIN A6-38  
Richland, Washington 99352

Mr. Joel Hebdon, Director  
Regulatory Compliance and Analysis Division  
U.S. Department of Energy  
Richland Operations Office  
P.O. Box 550, MSIN A5-58  
Richland, Washington 99352

EDMC

Dear Messrs. Sanders and Hebdon:

Re: Liquid Effluent Retention Facility (LERF) Permit Modification Regarding  
Unsaturated Zone Monitoring Alternatives Evaluation, Groundwater Evaluation,  
and Leachate Monitoring Performance Criteria Baseline

The Washington State Department of Ecology (Ecology) issued a letter dated January 24, 2001, regarding unsaturated zone monitoring alternatives evaluation, suspension of groundwater monitoring statistical evaluation requirements, LERF Resource Conservation and Recovery Act (RCRA) permit modification, and leachate monitoring performance criteria. The letter identified Ecology's intent to modify the LERF permit during calendar year 2001. To meet that goal, Ecology engaged in workshops with the United States Department of Energy (USDOE) and Hanford Site contractors to reach consensus on permit conditions prior to the modification. During the workshops, recognizing the benefit of reaching consensus on permit conditions prior to the modification, Ecology committed to continue the permit condition development process to the end of calendar year 2001 and to modify the RCRA permit during calendar year 2002.

To date, Ecology is pleased with the progress made on the leachate monitoring performance criteria baseline plan. Although Ecology has not yet approved a leachate monitoring plan, Ecology acknowledges the value of approving a leachate monitoring plan as a part of the permit modification. The USDOE's submittal of an Ecology approvable leachate monitoring plan in the very near future is anticipated.

Ecology staff recently reviewed a significantly deficient groundwater monitoring well evaluation plan. The deficiencies included a lack of acknowledgement of the non-existence of LERF-specific groundwater information. It is Ecology's conclusion that, to date, there is a lack of understanding of the following groundwater-related issues beneath the LERF:

- Nature of the top of basalt, including the depth and physical characteristics
- Definition of the uppermost aquifer



Messrs. Sanders and Hebdon  
December 19, 2001  
Page 2

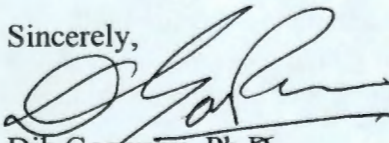
- Identification of geologic units in which the uppermost aquifer is situated
- Groundwater flow direction beneath the site
- Potential communication between yielding groundwater monitoring wells
- Potential communication between the uppermost unconfined and confined aquifers
- Adequate groundwater level data from yielding groundwater monitoring wells
- Potential contaminant indicators and a baseline for these parameters/constituents for possible use in intrawell comparisons
- Adequate evaluation of remaining useful "life" of yielding wells

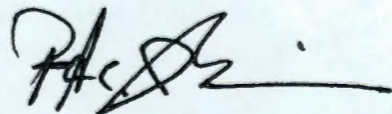
Many of these elements were agreed to in a joint Ecology meeting with designated representatives of the USDOE and the Pacific Northwest National Laboratory, but the groundwater monitoring well evaluation plan failed to address most elements.

In recognition of progress made on the leachate monitoring plan and the value of reaching consensus prior to permit modification, Ecology hereby gives notice that the current process will continue until January 24, 2002. It is Ecology's goal to achieve consensus on permit conditions associated with leachate monitoring, groundwater evaluation, and unsaturated zone monitoring evaluation prior to permit modification so that the leachate monitoring and groundwater evaluation plans and the unsaturated zone monitoring alternatives schedule may be included in the permit. In other words, Ecology prefers to approve a leachate monitoring plan, a groundwater evaluation plan, and a schedule for evaluating unsaturated zone monitoring alternatives prior to permit modification. However, if necessary, Ecology will modify the permit without approved plans and schedule and will draft permit conditions which will ultimately achieve the development of the above described plans and schedule. After January 24, 2002, Ecology will evaluate permit modification options that achieve the LERF permit modification during calendar year 2002.

If you have any questions about this letter, please contact Alisa Huckaby at (509) 736-3034 or Joe Caggiano at (509) 736-5720.

Sincerely,

  
Dib Goswami, Ph.D.  
Senior Hydrologist  
Nuclear Waste Program



Fred Jamison, Project Manager  
Waste Management Project  
Nuclear Waste Program

ADH:JC:lkd

cc: Robert Hiegel, USDOE  
Kevin Leary, USDOE  
John Morse, USDOE  
Kristi Lueck, FH  
John Winterhalder, FH

Stuart Luttrell, PNNL  
Todd Martin, HAB  
Ken Niles, OOE  
**Administrative Record:** LERF