



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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November 27, 2002

Mr. Joel Hebdon
United States Department of Energy
Richland Operations Office
P.O. Box 550, MSIN: A5-58
Richland, Washington 99352

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EDMC

Dr. Mr. Hebdon:

Re: *Liquid Effluent Retention Facility (LERF) Composite Liner Performance Monitoring Plan*, dated July 26, 2002

The Washington State Department of Ecology (Ecology) is in receipt of the aforementioned document and the additional information dated October 23, 2002. While this submittal compliments the set of alternative groundwater, vadose zone, and LERF liner performance monitoring and evaluation plans previously submitted to Ecology for review, it does not satisfactorily address all criteria for Ecology's approval. After review, Ecology has determined that the United States Department of Energy's (USDOE) alternative approach is not approved. As stated in Ecology's letter, dated July 1, 2002, Ecology will propose a modification to *The Hanford Facility Resource Conservation and Recovery Act Permit for the Hanford Site for the Treatment, Storage, and Disposal of Dangerous Waste* to include conditions for evaluating liner performance and environmental monitoring alternatives. The modification will be based on the plans previously negotiated by the small working groups.

Ecology's justification for not approving USDOE's alternative approach is as follows:

- This proposed plan is to monitor leachate volume *only*, which Ecology has previously rejected. While there is some additional merit in that the proposed 'action level' would trigger action to plan and implement a path forward to investigate the cause of the concern, there is, however, still the matter of leachate composition which is not addressed by this alternative plan. This is critical from both analytic and environmental protective standpoints, especially in that data which USDOE has provided in the past on leachate composition appeared to have had little quality control. These data were suspect because analyses were not consistently run for all constituents, there were differences in dates of collection, there were no indications of methods of analysis, and questions exist regarding procedures for collection, holding time, temperature, appropriateness of methods, etc. employed in gathering the data. Furthermore, of particular interest, was the presence of both large and small anions and cations in the leachate. If functioning effectively as a semi-permeable

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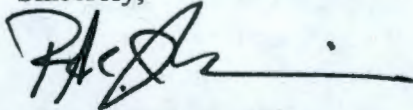
membrane, the HDPE liners should be expected to allow passage of small diameter ions but block the passage of large diameter ions. The unexplained presence of both in the leachate raises more questions than it provides answers.

- The proposed plan does not provide adequate reporting requirements. The 'action level' reporting should be on a quarterly basis, i.e., if the action level exceeds the 'trigger level' for the quarter ("either per basin or cumulatively," [which should be specified in the plan]), then Ecology should be provided immediate notice.

Therefore, Ecology will draft leachate monitoring conditions that will require monitoring for both volume and chemistry and will require immediate notification if the volumetric action level is exceeded.

This letter also serves as Ecology's request to be provided a complete copy of the consultant's entire report used in part in development of the alternative proposal, within seven (7) days of receipt of this letter. If you have any questions or concerns regarding this letter, please feel free to contact me at (509) 736-3022.

Sincerely,



Fred C. Jamison
Waste Management Project Manager
Nuclear Waste Program

sdb

cc: Dave Bartus, EPA
Larry Gadbois, EPA
Grant Baston, USDOE
Bob Hiegel, USDOE
George Sanders, USDOE
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Administrative Record: LERF