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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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January 21, 2004

Mr. Joel Hebdon, Director
Office of Regulatory Compliance and Analysis
Richland Operations Office
U.S. Department of Energy
P.O. Box 550, MSIN: A5-15
Richland, Washington 99352

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EDMC

Dear Mr. Hebdon:

Re: Review of Tritium Tracking and Groundwater Monitoring at the Hanford Site 200 Area State-Approved Land Disposal Site (SALDS)-Fiscal Year (FY) 2003; PNNL-14039

The Washington State Department of Ecology (Ecology) has reviewed the *Tritium Tracking and Groundwater Monitoring Plan For the 200 Area Effluent Treatment Facility (ETF) State Approved Land Disposal, State Waste Discharge Permit ST-4500 (PNNL-14038)*. As required by Section S.10 of the State Waste Discharge Permit ST-4500, the United States Department of Energy (USDOE), Richland Operations Office submitted the subject fiscal year monitoring report November 17, 2003 (FH-0304496). Ecology considers the report acceptable and fulfills the requirements of the State Waste Discharge Permit ST-4500, Section S.10.

Tritium is the only constituent deliberately discharged to the SALDS facility. USDOE seems to have done the required evaluation on the predictive modeling and tracking of tritium. The modeling study seems to show how the tritium plume is migrating, its size, and the expected future location of the plume. As required by the permit and as stated in the report, the tritium plume from ETF will need continuing monitoring and should continue as the main objective of the monitoring program. However, Ecology may have future concerns in the overall approach of the tracking and monitoring of the tritium plume at SALDS. **First, is the groundwater monitoring network adequate enough to prove that the current size and shape of the plume is as depicted by the modeling study? Second, there is not a network of wells tracking the plume or the groundwater modeling prediction.**

Ecology continues to work with USDOE to come to a common understanding and consistent approach to all modeling of groundwater at Hanford. With this understanding in mind, Ecology makes the following suggestions/recommendations (as last year's report) for a future path forward on Tritium Tracking and Groundwater Monitoring at SALDS:

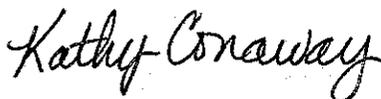
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1. As much as possible, the monitoring and modeling activities should coordinate with other sitewide activities (i.e. modeling, monitoring, sitewide data needs).
2. There could be potential cost savings by a reduction of the sampling frequency and also a reduction of the number of current upgradient monitoring network system.
3. Section 4.0 Conclusions and Recommendations of this year's report makes the statement: ***Wells highlighted in bold in Table 2 are estimated to go dry or require some modification to sampling approach due to low water levels within the next 6 to 12 months.*** Ecology wants to know what modifications to the sampling approach are planned and/or if final modifications have been determined. Ecology would also be willing to sit down with Fluor Hanford and Pacific Northwest National Laboratory to talk about this and any other suggestions or recommendations.

State Waste Discharge Permit ST-4500, Section S.10 states that the permittee shall submit a finalized *Tritium Tracking and Groundwater Monitoring Plan* within 30 days after receipt of Ecology comments to the draft report. Because Ecology does not require any changes to the draft *Tritium Tracking and Groundwater Monitoring Plan*, Ecology accepts the draft submittal of November 17, 2003, as the finalized plan per permit requirements.

If you have any questions or comments, please contact me at (509) 736-3045. In addition, please let Ecology know how the additional requested information will be provided to us.

Sincerely,



Kathy Conaway
Environmental Specialist
Nuclear Waste Program

KC:nc

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