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DEPARTMENT OF ECOLOGY

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May 20, 1997

Ms. Marilyn Reeves  
Hanford Advisory Board  
101 Stewart Street, Suite 1101  
Seattle, WA 98101

Dear Ms. Reeves:

Thank you for the Board's, Consensus Advice #67, regarding Tank Waste Remediation System (TWRS) Vadose Zone Characterization. Ecology appreciates the Board's perspective on vadose zone and generally agrees with the advice. Our perspective on the key points in the advice are as follows:

1. We have recommended the development of a comprehensive plan that would delineate all of the critical key vadose zone data needs for the entire TWRS program (including RCRA monitoring, operations, retrieval, Hanford Tank Initiative, tank closure activities, and Low Activity Waste Storage Disposal Performance Assessment). This plan should be followed with development of specific project plans and data quality objectives (DQOs) for the key elements, and the funding for vadose programs adjusted accordingly. The Vadose Zone Expert Panel should evolve as an advice/peer review panel, similar to the Chemical Reaction Sub-TAP, with a clearly defined mission. Ecology would like to remain involved as an observer to the panel.
2. We concur that integration between vadose zone programs across the Hanford site is necessary. We believe this would both increase efficiencies and allow programs to use a lessons-learned approach.
3. While we agree that evaluation of all activities that could be contributed to liquid discharges to Hanford tank farms and associated driving forces is a necessary effort, it should be coupled with implementation of prompt mitigation measures to reduce the primary driving forces. This should be done in a timely manner so that the controlled, clean and stable program can continue to reduce operating costs.
4. Now that tank C-106 retrieval has been delayed, Ecology would like to see the installation of a proven leak detection technology (such as Electrical Resistivity Tomography [ERT]) prior to sluicing tank C-106. A system like this would provide the earliest possible and most precise information in the event that a leak occurs during sluicing (i.e., how bad is the leak and when did



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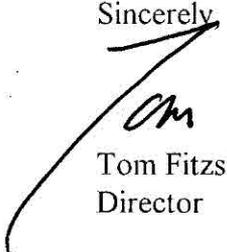
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it start). If tank C-106 does not leak while sluicing, ERT would serve as a good validation tool that past practice sluicing did not impact the environment.

5. Ecology has offered to help develop a specific plan for effective Hanford public involvement on vadose zone contamination. Ecology has offered to help in this effort. Additionally, U.S. Department of Energy should issue a notice and change appropriate future reports to indicate that the total number of known or suspected leaking single shell tanks is now 69. Recent spectral gamma logging has indicated that BY-111 and SX-102 are previously unidentified old leakers (these two tanks are not presently leaking).

6. We recognize the need to use the latest available data in making decisions about tank waste retrieval and closure issues. We also agree with your earlier statement that we must "get on with the cleanup." The TWRS Record of Decision (ROD) took into consideration the need to gather additional information in areas, such as the vadose zone, and adjust future actions accordingly. We believe that the phased approach chosen by the ROD provides for moving forward with tank waste remediation activities now, while continuing to collect data. We do not believe that the primary decisions made in the ROD for Phase I will change based on additional vadose zone data. While the many questions about the vadose zone are being addressed, the TWRS program can move ahead and begin to retrieve and treat tank wastes, primarily from the Double-shell Tanks. The TWRS program can be adjusted as new understandings of the vadose zone are integrated with other retrieval and closure performance criteria. Eventually this additional information can be incorporated into NEPA documentation for the TWRS program.

Sincerely,



Tom Fitzsimmons  
Director

cc: John Wagoner - USDOE