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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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July 24, 1997

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



Dear Mr. Goldberg:

Re: Ecology Response to Equivalency Demonstration for 100-D Ponds

The Washington State Department of Ecology (Ecology) has reviewed the U.S. Department of Energy's (USDOE) "Equivalency Demonstration for 100-D Ponds" (CHI, 1997). While Ecology concurs with the conclusion reached on the 100-D Ponds' groundwater issue, Ecology strongly disagrees with the Report's approach to demonstrating the vadose zone soils are clean.

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Ecology objects to the approach established in section 2.0 Regulatory Background for demonstrating that subsurface soils meet clean closure standards. The second paragraph of this section incorrectly states, "there is no Washington State Department of Ecology regulation or guidance that requires testing of subsurface soils." The purpose of Washington Administrative Code (WAC) 173-340-320(1) and (4)(f) are to provide sufficient sampling data and other information to confirm or rule out the release of hazardous substances, and to complete the preliminary characterization of the subsurface and ground water actually or potentially affected by the release. WAC 173-303-646(1)(a) would make corrective action applicable to 100-D Ponds and WAC 173-303-646(3)(a) would implement WAC 173-340-320. Beside the WACs cited, Ecology printed Publication #94-111 "Guidance for Clean Closure of Dangerous Waste Facilities" in August of 1994. This guidance states on page 33, "Ecology may require soil sampling at various depths to determine the extent of contamination" and on page 34 "If surface samples demonstrate contamination, then sampling must be conducted at depth intervals to determine the extent of contamination."

Another error in the regulatory background in this demonstration is the statement, "The recent clean closure of 2101-M Pond, a RCRA TSD unit, was accepted by Ecology without deep vadose zone data." According to the 2101-M Pond Closure Plan (DOE/RL 88-41, Rev. 2), subsurface soil samples were taken by PNNL for chemical analysis during the drilling of the groundwater monitoring wells 299-E18-3 and 299-E18-1. The analysis of these soil samples by PNNL for



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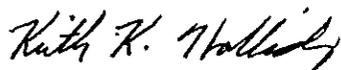
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metals and volatile organic compounds provided characterization data to determine the extent of contamination. Through characterization at 2101-M Pond the need for verification sampling at depth was eliminated. Ecology is unaware of any soil samples or data from 100-D Ponds' groundwater monitoring wells that would characterize the extent of contamination.

Ecology requires the USDOE collect and analyze soil samples from throughout the vadose zone to determine the extent of contamination at 100-D Ponds prior to submitting the revised closure plan for this unit. Ecology would welcome the opportunity to establish with USDOE data quality objectives to determine the extent of contamination in the 100-D Ponds' subsurface soils.

If you have any questions or need clarification on any of Ecology's comments, please feel free to contact me at (509) 736-3036.

Sincerely,



Keith K. Holliday
100-D Area Project Manager
Nuclear Waste Program

KH:rb

cc: J. R. James, BHI
S. W. Petersen, CHI
Administrative Record: 100-D Ponds