STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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January 28, 2019 19-NWP-015

William F. Hamel, Assistant Manager for the River Plateau
Richland Operations Office
United States Department of Energy
PO Box 550, MSIN: H5-20
Richland, Washington 99352

Re: Polychlorinated Biphenyl (PCB) Method Analysis Selection for the *200-EA-1 Operable Unit Waste Site RCRA Facility Investigation/Corrective Measures Study and Remedial Investigation/Feasibility Study Work Plan*, Draft A, (DOE/RL-2016-58)

References: See page 2

Dear William F. Hamel:

The Department of Ecology (Ecology) submitted comments on the above referenced work plan to the United States Department of Energy – Richland Operations Office (USDOE-RL) on August 17, 2018 (Reference 1). All of Ecology's comments have been resolved except comments addressing the following two issues. Ecology's request for USDOE-RL to:

1. Use Method 1668A for the analysis of aroclor congeners to determine the toxic equivalents (TEQ) on a limited number of the 114 waste sites in the 200-EA-1 Operable Unit. Addressed in this letter.
2. Perform a sensitivity analysis on the recharge rates for the "Immature Shrub Steppe" and the "Mature Shrub Steppe" phases. Addressed in letter 19-NWP-016 (Reference 2).

USDOE-RL is proposing using Method 8082 for the analysis of PCBs and a limited amount of congeners. Method 8082 does not measure all individual dioxin-like PCB congeners. It also lacks the analytical sensitivity to sufficiently evaluate exceedance of soil cleanup levels or screening levels for dioxin-like toxicity, expressed as 2,3,7,8-Tetrachloro dibenzo-p-dioxin TEQ. The method is also not accurate to use for soils that have been weathered (subjected to environmental degradation).

In addition, USDOE-RL has stated that the cost for the Method 1668A analysis is prohibitively expensive, quoting approximate costs of up to $3,600 per analysis. Whereas, Ecology's cost for this analysis is approximately $600 per analysis. The basis of the excessive cost quoted by USDOE-RL is not clear to Ecology.

It is Ecology's position that USDOE-RL's proposal will not collect data of sufficient quality for decision-making purposes. Therefore, Ecology has proposed samples from 20 waste sites (see attached table) be analyzed using both Methods 8082 and 1668A to determine not only the level of PCBs, but also the total TEQ.

Ecology is willing to participate in either the dispute resolution process developed as a part of the Kaizen event that was conducted in 2017, or the formal dispute resolution process as described in Article VIII of the *Hanford Federal Facility Agreement and Consent Order*.

At this point, Ecology will not approve the work plan until it includes the analysis of samples from the 20 wastes sites by both methods 8082 and 1668A.

If you have any questions, please contact me at nina.menard@ecy.wa.gov or (509) 372-7941, or Kim Welsch, Environmental Specialist, at kim.welsch@ecy.wa.gov or (509) 372-7882.

Sincerely,

Nina M. Menard

Nina M. Menard
Environmental Restoration Project Manager
Nuclear Waste Program

nm/aa
Enclosure

References:

1. Letter 18-NWP-139, dated August 17, 2018, "Department of Ecology's (Ecology) Response to the 200-EA-1 Operable Unit Waste Site RCRA Facility Investigation/Corrective Measures Study and Remedial Investigation/Feasibility Study Work Plan, DOE/RL-2016-58, Draft A, for a Final Review Comment Record (RCR) Period"
2. Letter 19-NWP-016, dated January 28, 2019, "Sensitivity Analysis on Recharge Rates for the 200-EA-1 Operable Unit Waste Site RCRA Facility Investigation/Corrective Measures Study and Remedial Investigation/Feasibility Study Work Plan, Draft A (DOE/RL-2016-58)"

cc electronic w/enc:

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Environmental Portal
Hanford Facility Operating Record
CHPRC Correspondence Control
MSA Correspondence Control
USDOE-RL Correspondence Control

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Summarization of 200-EA-1 OU Waste Site Selection Process for Congener Analysis

Table 1: Ecology's List of 200-EA-1 Waste Sites for Congener Analysis via Method 1668

#	Waste Site	# of Samples for Analysis[a]	Is Site Included on DOE's List for Congener Analysis?
1	216-A-29 Ditch	2	No
2	2607-E12 Septic System	3	No
3	2607-EA Septic System	1	No
4	200-E-292 Dumping Area	11	No
5	2607-E9 Septic System	1	No
6	2607-EF Septic System	1	No
7	200-E-297 Dumping Ground	12	No
8	200-E-142 Depression	1	Yes
9	216-B-2-1 Ditch	3	No
10	216-B-2-2 Ditch	2	Yes
11	216-B-2-3 Ditch	2	No
12	216-B-12 Crib	4	No
13	216-B-59 Trench	5	Yes
14	216-B-59B Retention Basin	1	Yes
15	2607-E3 Septic System	1	No
16	216-C-4 Crib	3	No
17	2607-E5 Septic System	1	No
18	200-E-13 Dumping Area	12	No
19	2607-E6 Septic System	3	No
20	200-E BP Burn Pit	10	Yes
	Total Samples	**79**	

Note: The technical basis used for selecting waste sites #1 to #20 is historical process knowledge based on the site descriptions. Each site was either; a burn site, dumping area, or septic and sewer site. Additionally, each waste site has been selected for PCB analysis via EPA method 8082 in DOE/RL-2016-58 Draft A.

[a] The number of samples was obtained from sample location figures located in DOE/RL-2016-58 Draft A, Appendix A.