Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

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Ms. Jane Hedges, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
3100 Port of Benton Boulevard
Richland, Washington 99352

Dear Ms. Hedges:

RESPONSES TO ECOLOGY'S COMMENTS ON THE CENTRAL PLATEAU TERRESTRIAL ECOLOGICAL SAMPLING AND ANALYSIS PLAN – PHASE III, DOE/RL-2006-27, PRELIMINARY REVIEW DRAFT

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The purpose of this letter is to respond to the State of Washington Department of Ecology's request for written responses to formal comments on the Central Plateau Terrestrial Ecological Sampling and Analysis Plan – Phase III, DOE/RL-2006-27, Preliminary Review Draft, provided by letter from John Price to Larry Romine, dated April 18, 2006.

The U.S. Department of Energy, Richland Operations Office responses are attached. If you have any questions, please contact me, or your staff may contact Larry Romine of my staff, on (509) 376-4747.

Sincerely,

Matthew S. McCormick, Assistant Manager
for the Central Plateau

AMCP:BLF

Attachments

cc: See Page 2

cc w/attachs:
J. B. Price, Ecology
E. A. Rochette, Ecology
D. A. Delistraty, Ecology
Administrative Record
Environmental Portal

cc w/o attachs:
B. A. Austin, FHI
R. Bauer, Ecology
C. E. Cameron, EPA
L. J. Cusack, Ecology
M. J. Hickey, FFS
M. B. Lackey, FHI
T. Martin, HAB
R. D. Morrison, FHI
K. Niles, ODOE
R. E. Piippo, FHI
M. Todd-Robertson, FHI

Responses to Beth Rochette Comments on Central Plateau Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Section/Page/ Paragraph	Comment	Response
1.	Global	The locations of all samples taken should be recorded so that it is possible to identify the locations where effects are observed.	Soil and radiation survey sampling locations are identified with GPS coordinates within an investigation area. Biota data are more generally identified spatially by the investigation area from which they were collected.
2.	Exec. Summary, page iii, 1st paragraph	Revise the third sentence as follows: "The activities described in this document will result in ~~the~~ contaminant and biotic data ~~needed for~~ that will assist in waste site decision making." The ecological risk data are just some of the data needed for waste site decision making.	Comment accepted.
3.	Exec. Summary, page iv, 2nd full paragraph	It is mentioned that tiers are types of data collected. However, this term is not used elsewhere in the document and examples of tiers are not provided. Give the tiers in this paragraph or refer to tiers in the document where they are discussed.	Comment accepted.
4.	Exec. Summary, Table ES-1, page vii and Table 1-1, page 1-25	For non-waste site soil radiological sampling, explain the multi-increment sampling along transects near Phase I and Phase II reference sites.	Comment accepted.
5.	Exec. Summary, Table ES-1, page vii and Table 1-1, page 1-25 and 1-26	Include replicates for the West Lake multi-increment samples. Ecology has not approved of multi-increment sampling without replication. Change the text to: "Collect multi-increment surface water samples ...." Make this change for pore water, sediment, and salt crust as well.	Comment accepted.

Responses to Beth Rochette Comments on Central Plateau Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Section/Page/ Paragraph	Comment	Response
6.	Exec. Summary, Table ES-1, page vii and Table 1-1, page 1-25 and 1-26	For the West Lake surface water and sediment samples add TBP and normal paraffin hydrocarbons to the list of analytes. TBP is both toxic and carcinogenic.	During the DQO workshop it was agreed that the semi-volatile constituents would only apply to the sediment analyses, not the surface or pore waters, given the greater capacity of sediment organic materials to bind SVOCs. Therefore, the new analytes have been added to the sediment analyte list only.
7.	Exec. Summary, page xi, 2nd paragraph	Delete the 2nd sentence, which states that organic chemicals were not associated with the processes at PUREX and B-Plant. This statement is not correct. The PUREX process involved solvent extraction with tributyl phosphate (TBP) and normal paraffin hydrocarbon (NPH) (Jones, T., 1993, *Process chemistry at Hanford (Genesis of Hanford Wastes)*, Hanford Technical Exchange Program, PNL-SA-23121 S). Also, a fission product recovery process was used at B-plant; the process used TBP, NPH, organic complexing agents such as HEDTA, and tartaric acid. All are organics. Samples from West Lake should be analyzed for TBP and normal paraffin hydrocarbons.	Comment accepted. Note, the additional analytes apply only to the sediment samples, consistent with the response in Comment #6.
8.	Table 2-2, page 2-9	Delete the 5th column – notice that it cites WAC 173-340-745, which is not appropriate for direct exposure to radionuclides and not appropriate for ecological receptors.	Comment accepted.
9.	Table 2-2, page 2-9	Delete the 6th column. This risk assessment is for ecological receptors only.	Comment accepted.
10.	Tables 2-6, 2-7, and 2-8, page 2-14-2-18,	Detection limits for several analytes are given as TBD. Replace the TBDs with values.	Comment accepted.
11.	Tables 2-6 and 2-7, page 2-14 – 2-17,	Add TBP and normal paraffin hydrocarbons to the analyte tables.	Comment accepted for Table 2-6 only, consistent with responses to Comments #6 and 7.

Responses to Beth Rochette Comments on Central Plateau Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Section/Page/ Paragraph	Comment	Response
12.	Table 2-7, page 2-16	The As detection limit for water, 10 µg/L, is too high relative to the WAC 173-340 groundwater cleanup level. Use AAS with hydride generation to achieve lower detection limits.	The basis for this comment appears to be inconsistent with the objectives of this SAP, which is ecological risk assessment, not human health, or groundwater protection. Nevertheless, the comment has been accepted to ensure that the detection limits provide a margin for analytical error, not for compliance with GW standards.
13.	Table 2-7, page 2-17	Reduce the detection limit for uranium detection limit to ≤ 30 µg/L (the MCL).	The basis for this comment appears to be inconsistent with the objectives of this SAP, which is ecological risk assessment, not human health, or groundwater protection. The PQL in the SAP is two orders of magnitude lower than the ecological screening value (500 µg/L vs. 40,000 µg/L), and is more than adequate for the intended purposes.
14.	Section 3.5, page 3-10, 1st paragraph	Provide a figure showing where the MIS plots will be located on the transects. Revise the figure to indicate the transects given on Table 3-4. Also, provide text in the document giving the rationale for choosing the plot locations.	Comment accepted.
15.	Section 3.5.2, page 3-11 – 3-12, Bullets	The SAP should contain more detail. Provide text to cover the first bullet, "Identify the investigation area …" – how will this be done? For the 5th bullet, use a subheading on p.3-13 to show the reader which of the steps includes the soil preparation.	Comment accepted.
16.	Section 3.5.3, page 3-13, #9	The formula for d appears to have an extraneous period before the cubed root symbol. Please correct.	Item #9 was deleted, as grinding will not be performed by the lab.

Responses to Beth Rochette Comments on Central Plateau Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Section/Page/ Paragraph	Comment	Response
17.	Table 3-4, page 3-14	Field replication does not appear to be sufficient (only 2) and it is not clear where the replicates will be taken. Increase the replicates to 4 and explain what is meant by North area.	The decision to use two replicates came from consultation with Chuck Ramsey. He recommends collecting three samples to assess variability in the field. In this case, the 2 field replicates augment the primary sample in the North area (northernmost sampling zone in new SAP Figure 3-4) making three total samples. The replicates will be taken from the same investigation area as the primary sample. This is stated in item #6 at the bottom of page 3-12 in the version of the SAP that was reviewed by Ecology.
18.	Figure 3-4, page 3-15	Mark the Hanford facilities on this map or give building and parking lot outlines.	Comment accepted.
19.	Section 3.7.3, page 3-22, 1st paragraph	Since the lake perimeter will be sampled systematically, the open water portion of the lake should also be sampled systematically.	Sampling was designed to capture exposure for wildlife using the lake as a potential source of drinking water or perhaps as a salt lick. Thus the lake's perimeter was logical to characterize as wildlife would not be expected to venture into the middle of the lake.
20.	Table 3-7, page 3-23	Add tributyl phosphate and normal paraffin hydrocarbon to the analyte list for sediment and surface water.	Comment accepted for sediment as noted in previous comments.

Responses to Beth Rochette Comments on Central Plateau Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Section/Page/ Paragraph	Comment	Response
21.	Table 3-7, page 3-23	The number of multi-increment samples for each sample type will need to be increased. In addition to a need to compensate for field variability, if there are any analytical errors for the single samples (such as spillage, contamination, low spike recovery, exceedence of holding times, etc) the site will have to be re-sampled. It would be more cost effective to get more samples during the upcoming sampling effort than to re-sample later. Ecology is currently evaluating the performance evaluation done for the 100/300 area component of the River Corridor Baseline Risk Assessment, and will recommend a number of samples based on those results.	The performance assessment results for the 100/300 area component of the River Corridor Baseline Risk Assessment are not relevant to West Lake because the assessment deals with soil only and this medium is not currently targeted for sampling at West Lake. Duplicate MISs for each media at West Lake are adequate considering the relative homogeneity of aquatic matrices compared to heterogeneous soil. Enough material will be collected so that excess exists to provide backup material in the event of sample loss.
22.	Table 3-7, page 3-23	The number of increments in for MIS, set at 20, does not appear to have a basis. Why was 20 chosen?	Twenty increments were chosen based on a conversation with Chuck Ramsey and on considerations of the homogeneity of aquatic matrices.

Responses to Damon Delistraty Comments on CP Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Page, Paragraph	Comment	Response
		Regarding PCB congener analysis, thanks for including the 12 dioxin-like PCBs with toxicity equivalent factors (TEFs) from the World Health Organization (WHO, http://www.epa.gov/toxteam/pcbid/tefs.htm). Although cost is higher, PQLs for dioxin-like PCBs are much lower with EPA Method 1668A than EPA Method 8082 (see p. 13 in: http://www.ecy.wa.gov/pubs/0203003.pdf). In addition to "total PCBs," dioxin "total equivalents" (i.e., TEQ or 2,3,7,8-TCDD equivalents) should be calculated as the sum of products of the 12 WHO PCBs and TEFs. (In theory, it would be informative to measure the entire suite of dioxin-like compounds [7 dioxins, 10 furans, 12 PCBs], rather than only the PCB component, although cost is high.)	
1.	Page viii, paragraph 3	Both total PCBs and PCB TEQ in lizards and mice can be used in exposure modeling. Also, consider measuring total PCBs and PCB TEQ in invertebrates for exposure modeling (if sufficient invertebrate tissue can be collected). Mammalian or avian TEFs (Van den Berg et al, 1998; http://cfpub.epa.gov/ncea/raf/recordisplay.cfm?deid=55669) should be used for calculating dietary TEQ concentration (mg TEQ/kg prey) for higher trophic level mammalian or avian receptors (respectively) ingesting mice, lizards, or invertebrates. Dietary TEQ concentrations could then be converted into a dose (mg TEQ/kg BW-d), via an ingestion rate (kg prey/kg BW-d), and compared to a TRV (mg TEQ/kg BW-d).	Thank you. The exposure modeling suggestions will be considered for the risk assessment.

Responses to Damon Delistraty Comments on CP Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Page, Paragraph	Comment	Response
2.	Page ix, paragraph 3	Note that in addition to CCl4 (including its transformation products) and other VOCs (e.g., TCE, see Carlson. 1996. Risk Anal 16:211-219), burrowing mammals may be exposed to metals (e.g., Mn, Cd) via inhalation (olfactory uptake) of contaminated subsurface air (Bench et al. 2001. ES&T 35:270-277). There is also evidence that PCBs can enter the olfactory system via inhalation (e.g., Apfelbach et al, 1998. Arch Toxicol 72:314-317, http://www.tat.physik.uni-tuebingen.de/~pcb-info/literatur/r.apfelbach.pdf). This may be relevant to burrowing mammals that inhabit soils contaminated with PCBs. Please cite these references in the CCl4/burrow discussion, and consider measuring several key metals and PCB congeners (along with CCl4 and transformation products) in burrow soils and possibly in burrowing mammal tissues (e.g., olfactory bulbs).	Burrowing mammals would be exposed to metals and PCBs in the subsurface although there is no reason to expect that contamination of these COPECs is greater in the vicinity of the carbon tetrachloride plume relative to other waste site areas sampled in Phase I. Because whole organisms were sampled for metals and PCBs in investigation areas, the exposure to metals and PCBs was evaluated by collecting the Phase I small mammals.
3.	Page xi, paragraph 2	The statement, "Organic chemicals were not utilized in the processes associated with PUREX and B Plant," is incorrect. Organic solvents, including tributyl phosphate (TBP), are used in the PUREX process (e.g., http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=11453010&dopt=Abstract). Because TBP (as well as its degradation products) may be mobile in groundwater, it should be included in the SVOC analysis in West Lake sediments. Please explain in more detail how dose to wildlife will be calculated from salt crust, used as a salt lick (e.g., define ingestion rates of salt crust for receptors).	Comment accepted. TBP and normal paraffin hydrocarbons will be added to SVOCs for organic analyses of sediments. The calculation for dose associated with ingesting salt crust (e.g., as a salt lick) will be developed as part of the ecological risk assessment.

Responses to Damon Delistraty Comments on CP Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Page, Paragraph	Comment	Response
4.	Page xii, paragraph 1	In addition to generic dose guidelines (e.g., USDOE BCGs) or chemical screening levels (e.g., MTCA Table 749-3 eco soil levels), an uncontaminated reference site provides a data set to compare ecosystem properties (e.g., species diversity, trophic structure, vegetative cover) with those same properties at a contaminated waste site. So, it should be noted that in the case of West Lake (where no suitable reference site has been selected), comparisons will be limited primarily to generic dose or contaminant screening levels. In particular, without a reference site, it may be difficult to evaluate reconnaissance survey information (e.g., see Table ES-1 which lists biological surveys and physical/chemical properties) or salt crust and pore water COPEC concentrations.	Comparisons of West Lake reconnaissance survey information to another site are not planned. Exposure from abiotic media or modeled from food web transport will be compared to toxicity thresholds. Consequently, a reference site is unnecessary for West Lake.
5.	Page 1-8, bullet 1	If insects contain or produce natural cyanides (as do certain plants, bacteria, fungi, and algae, see http://www.atsdr.cdc.gov/tfacts8.html), why are detections in lizards and small mammals (insectivorous or herbivorous species) unexpected, given potential food chain transfer (assuming cyanide is incompletely metabolized)?	Cyanide was unexpected in vertebrates because it is not typically produced in this class. Regarding trophic transfer, cyanide was found at roughly the same levels in predators as prey. Like most inorganics, cyanide is not known to be bioacumulative so one would expect lower levels in predators than in prey.
6.	Page 1-9, paragraph 1	Because multiple "outliers" were observed in tissues for both Tl (invertebrates) and U-235 (lizards), these COPECs should be sampled more extensively to better characterize their distribution.	Additional lines of evidence led to the decision to not collect further Tl or U-235 data. For example, the thallium levels recorded are within the range of crustal abundance levels. For U-235, no waste site soils had concentrations greater than background.
7.	Page 1-10, paragraph 3	To offset an inflated Type I error, note that the P level may need to adjusted downward (e.g., Bonferroni adjustment) in the case of multiple tests.	Thank you for the comment. It has been noted for later consideration.

Responses to Damon Delistraty Comments on CP Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Page, Paragraph	Comment	Response
8.	Page 1-17, paragraph 1	If Phase 3 soil sampling is not coupled with tissue sampling at the same locations, what is the rationale of matching the selected area (625 m2) to the home range of mice? How many MIS soil samples will be collected in order to comply with MTCA requirements?	The objective of this study is to assess spatial patterns of contaminant deposition. Because the focus is not on assessment population areas, units smaller than the Phase I and Phase II 1-ha investigation areas will be sampled. The MIS approach was proposed at the DQO Workshop as the best methodology for characterizing soil potentially impacted by radionuclide deposition from stack emissions. The area of 0.0625 ha was selected to be consistent with the pocket mouse and deer mouse home ranges. 25 increments were selected to provide adequate coverage of various microsites within the sample area. Regarding MTCA, the WAC has no requirements with regard to soil samples collected to evaluate ecological risks.
9.	Page 1-18, paragraph 2	Please describe the derivation of the inhalation ESL for CCl4. Also, there may be additional VOCs (e.g., CCl4 transformation products, including CHCl3, CH2Cl2, CH3Cl) that should be evaluated in burrow air.	The derivation of the CCl4 ecological screening level is detailed in Newell et al. 2006, Wildlife ecological screening levels for inhalation of volatile organic chemicals, submitted to Environmental Toxicology and Chemistry. Drafts of the manuscript are available upon request.
10.	Page 1-21, paragraph 4	Although organic chemicals may have been a "minor" component of the processes associated with PUREX and B Plant, organics may not be minor toxicologically (e.g., TBP). Also, this statement appears more accurate than the one on p. xi (paragraph 2) which claims that organic chemicals were not used in these processes. Please correct this inconsistency.	Please see response to comment 3
11.	Page 1-24, paragraph 1, bullet 4	How will radiological screening levels be defined for salt crust?	This is not a typical exposure calculation for wildlife and will be developed in the ecological risk assessment.

Responses to Damon Delistraty Comments on CP Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Page, Paragraph	Comment	Response
12.	Page 2-5, paragraph 4	Please clarify the distinction between field replicate for quality control vs. multiple field samples for statistical estimation.	A field replicate is employed to provide an estimate of COPEC variability associated with a given field sample. Multiple field samples are used to characterize the COPEC variability of a spatial area.
13.	Page 2-9, Table 2-2	It is unclear why the two columns which refer to human health CULs , i.e., "Direct Exposure, Industrial (WAC 173-340-745)" and "Soil Concentration Protective of Groundwater (WAC 173-340-747)" are included, since the Phase 3 SAP is for an ERA.	The noted columns have been deleted.
14.	Page 2-11, Table 2-3	Please clarify that "BZ" numbers for PCB congeners are also "IUPAC" numbers (assuming this is the case, see http://www.epa.gov/toxteam/pcbid/bzviupac.htm). Note that "Total PCBs" may be a misnomer, since not all 209 congeners are quantified. Also, please label the 12 WHO dioxin-like congeners. Please provide a footnote explaining the derivation of the 0.1 mg/kg (FW) target quantitation limit for vertebrates.	Clarifications made. The 0.1 mg/kg quantitation limit was based on back-calculating the concentration in prey necessary to exceed the WAC PCB mixtures toxicity reference value for terrestrial wildlife (WAC Table 749-5).
15.	Page 2-12, Table 2-4	The target quantitation limit for cyanide is <PQL, so will there be a problem with food chain modeling?	There is no problem with food chain modeling if cyanide is detected. Non-detects will be treated as uncertainties.
16.	Page 2-12, Table 2-5	Please add a footnote to the column, "Matrix Specific Target Quantitation Limits, Invertebrates," to identify the source of these limits. Many of these limits appear to be soil radiological BCGs and nonradiological MTCA Table 749-3 soil concentrations.	Sources of radiological limits for tissue are cited and the source calculations are presented in the Phase III DQO
17.	Page 2-14, Table 2-6	There may be a problem with Hg, since SQuiRT TEL<PQL. Please explain how this will be addressed.	Non-detects above the PQL will be treated as an uncertainty

Responses to Damon Delistraty Comments on CP Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Page, Paragraph	Comment	Response
18.	Page 2-16, Table 2-7	Regarding the ORNL reference, I could not locate values attributed to this reference. Also, this reference lists sediment benchmarks (not surface water benchmarks).	The correct reference has been added. It is, ORNL, 1997, Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants: 1997 Revision, ES/ER/TM-85/R3. (Efroymson, R.A., M.E. Will, G. W. Suter II, and A. C. Wooten.) U.S. Department of Energy, Oak Ridge Tennessee. Although that document is based on plants, the values came from hydroponic studies and Oak Ridge used them for wetlands assessments.
19.	Page 2-18, Table 2-8	Please explain the derivation and identify the source of the target quantitation limit for CCl4 in burrow air (0.91 ppmv). Why are the two columns with WAC references included when this is an SAP for an ERA (not human health).	See comment 9 for the CCl4 TRV. The columns noted have been deleted.
20.	Page 2-21, paragraph 2 and 3	Provide rationale for not validating physical property data and field screening analytical results.	The physical property data and field screening analytical results are of secondary importance to data on COPECs and thus do not warrant the same degree of quality assurance.
21.	Page 2-22, paragraph 4	The exposure model presented is similar but not equivalent to the model in MTCA Table 749-4. The MTCA model does not include AUF, but does include other terms to potentially lower COPEC intake (e.g., P, RGAF). P may include AUF but may also include other factors which reduce intake of contaminated food (e.g., TUF).	Thank you for the comment. It has been noted.
22.	Page 2-23, paragraph 2	Please describe the uncertainty analysis for exposure and toxicity parameters, as described in LA-UR-04-8246 (LANL, 2004, Screening Level ERA Methods, Rev 2).	The considerations outlined in LANL's uncertainty analysis have been developed further in the SAP.

Responses to Damon Delistraty Comments on CP Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Page, Paragraph	Comment	Response
23.	Page 2-23, paragraph 2	Regarding total PCB TRVs in WAC 173-340-900 (Table 749-5), clarify which TRVs (i.e., shrew, vole, robin) will be used to represent Hanford receptors to compare with modeled intake. In addition to total PCBs, calculate PCB TEQ in mammals and lizards, using WHO mammalian and avian TEFs. Intake (mg TEQ/kg BW-d) can be modeled for higher trophic level mammalian and avian receptors (respectively), ingesting these prey. This intake, in turn, can be ratioed to the dioxin TRV in Table 749-5 to assess potential effects to a receptor ingesting PCB contaminated prey.	The suggested comparisons will be considered in the risk assessment.
24.	Page 2-24, paragraph 4	"Tables 2-9 through 2-13" should read "Tables 2-9 through 2-14." Also a typo – "insect" (not inset).	Comment accepted.
25.	Page 2-27, Table 2-11	EPA Method 1668A may be needed for dioxin-like PCB analysis.	Dioxin-like congeners will be adequately quantified with the measures proposed.
26.	Page 2-28, Table 2-14	In addition to CCl4, please consider measuring CCl4 transformation products in soil gas (e.g., CHCl3, CH2Cl2, CH3Cl).	Thank you for the comment. The degradation products have been added to the SAP and will be measured
27.	Page 3-2, bullet 2	If an MIS sample is designed with a random start, this type of sample is better characterized as a systematic sample with a random component. It is not a completely randomized sample, since all members of the population do not have an equal probability of selection. That is, after the initial location is randomly selected in the first cell, subsequent increment locations are fixed. Therefore, MIS should be discussed under "Systematic Grid Surveys" (rather than under "Random Sampling").	The points made are appreciated. The subsection "random sampling" has been renamed, "systematic sampling with a random start."
28.	Page 3-7, paragraph 1	Does the Blaustein and Johnson (2003) reference on amphibians apply similarly to reptiles (e.g., lizards)?	The reference is applicable in a general sense of what to consider with regard to abnormalities in wildlife

Responses to Damon Delistraty Comments on CP Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Page, Paragraph	Comment	Response
			Stack contaminants were primarily radionuclides, including short lived radionuclides such as Co-60 and I-131 (Hanford Environmental Dose Reconstruction Project) and longer half life radionuclides (Cs-137, I-129, Pu-239/240, Sr-90). Iodine-129 is not typically found in surface soils and it is very mobile in water and easily transported through the soil column to groundwater. I-129 data was extracted from Hanford Site remedial investigations (RI) and I-129 data from the non-waste site areas were reviewed. I-129 was not detected in 15
29.	Page 3-10, paragraph 1	Please provide a brief rationale for only analyzing Cs-137, Sr-90, and isotopic Pu for evaluating air stack deposition in surface soils.	RI samples; there are two reports with I-129 from the mid-1980s. In that period, I-129 was reported in soil, cryptogams and sagebrush at concentrations that average roughly zero. Given its high mobility and low levels, Iodine-129 was not typically measured in background or non-waste site soil samples and will not be measured for the Phase III EcoDQO. Co-60 is also not included because it has a 5 year half life and is no longer routinely detected in Hanford soil and vegetation. Radionuclides considered as contaminants of interest are Cs-137, Pu-239/240, Sr-90. Pu-238 will also be evaluated given its long half life and its association with Hanford operations.
30.	Page 3-12, paragraph 2, step 1	Note that the random offset will be the same in each grid cell for locating each increment of a single MIS sample (if this is the case). Please provide rationale for 25 increments/MIS sample.	The comment is noted. The 25 increments/MIS were selected to adequately characterize microsites within the investigation area that could affect surface deposition. It should be noted that 25 increments per 0.0625 ha represents 8X the sample point density that was used to characterize Phase I and II waste sites

Responses to Damon Delistraty Comments on CP Terrestrial Ecological Sampling and Analysis Plan - Phase III, DOE/RL-2006-27

Index	Page, Paragraph	Comment	Response
31.	Page 3-14, paragraph 1	Please describe the derivation and identify the source of the inhalation ESL for CCl4.	Please see comment 9
32.	Page 3-18, Table 3-5	Please provide a basis for the number of samples specified for passive and active gas sampling.	The sample numbers were based on best professional judgment.
33.	Page 3-20, paragraph 5 and Page 3-22, paragraph 2	Specify that surface water samples will be collected around the lake perimeter (assuming this is the case). However, why not collect surface water samples (as well as sediment samples) with a more representative spatial design for the entire lake (i.e., not limited to shoreline locations)?	Sampling was designed to capture exposure for wildlife using the lake as a potential source of drinking water or perhaps as a salt lick. Thus the lake's perimeter was logical to characterize as wildlife would not be expected to venture into the middle of the lake.
34.	Page 3-22, paragraph 5	Regarding sampling abiotic media at West Lake, provide rationale for random sampling pore water vs. systematic sampling other media (i.e., surface water, sediment, salt crust).	The indication of random sampling was an error that has since been corrected.
35.	Page 3-23, paragraph 3	Detection limits higher than those listed in Tables 2-2 through 2-8 (not just Table 2-2) should be regarded as significant deviations. Also, PQLs higher than target required quantitation limits are problematic (e.g., cyanide in Table 2-4; Se and V in Table 2-5; Hg in Table 2-6; Cu, Ni, and Ag in Table 2-7).	Thank you for the comment. It has been noted.