



Department of Energy
Richland Operations Office
P.O. Box 550
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19-SGD-0040

AUG 29 2019

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Addressees:

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 COMMENT RESPONSE
RESOLUTION AND PATH FORWARD

References: (1) Ecology letter from N. M. Menard, to M. W. Cline, RL, "Re: Department of Ecology's (Ecology) Revised 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," 18-NWP-153, dated September 12, 2018.

(2) EPA letter from C. E. Cameron, to W. F. Hamel, RL, and N. M. Menard, Ecology, "EPA Comments on Draft A RI/FS Work Plan and Sampling Analysis Plan for 200-EA-1 Operable Unit," dated September 10, 2018.

This letter transmits the U.S. Department of Energy Richland Operations Office (RL) responses to the Washington State Department of Ecology (Ecology) and U.S. Environmental Protection Agency (EPA) comments, References (1) and (2), on 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. This letter completes the commitment made in RL's July 31, 2019, letter 19-SGD-0038 to provide comment responses by August 30, 2019. All of Ecology's formal comments were resolved except for the Polychlorinated Biphenyl/ Congeners and the recharge rate, which were resolved as documented in Interagency Management Integration Team (IAMIT) Determination 2019-003 and IAMIT Determination 2019-004.

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Ecology completed a redline/strikeout review of formal Work Plan comment incorporation on August 19, 2019. RL is coordinating with Ecology regarding this redline/strikeout review as DOE/RL-2016-58, Revision 0 is finalized. A meeting is planned to address four new informal Ecology Work Plan comments received on August 19, 2019.

RL acknowledges that the resolution to Ecology comment 30 requiring an update to the implementation schedule (Chapter 6, figure 6-1), is pending resolution of the Central Plateau agreement-in-principle interim milestone negotiations. RL and Ecology will sign DOE/RL-2016-58, Revision 0 following the Chapter 6 update. In the interim, the Tri-Parties will sign the Sampling and Analysis Plan which is Appendix A to DOE/RL-2016-58.

The comment responses were reviewed and agreed on by Nina Menard, Ecology, and Craig Cameron, EPA.

If you have any questions, please contact me, or your staff may contact Mike Cline, of my staff, on (509) 376-6070.

Sincerely,



William F. Hamel, Assistant Manager
for the River and Plateau

SGD:MWC

Attachments

cc w/attachs:

S. G. Austin, CHPRC
J. Bell, NPT
S. L. Brasher, MSA
R. Buck, Wanapum
C. E. Cameron, EPA
L. Contreras, YN
S. W. Davis, MSA
R. E. Day, CHPRC
D. R. Einan, EPA

M. Johnson, CTUIR
S. Leckband, HAB
N. M. Menard, Ecology
K. Niles, ODOE
S. N. Schleif, Ecology
K. R. Welsch, Ecology
Administrative Record (OU: 200-EA-1)
Environmental Portal

REVIEW COMMENT RECORD (RCR)

200-EA-1 Work Plan Comments (DOE/RL-2016-58, REV. 0)
 Commenter(s): Washington State Department of Ecology
 Date: August 2019

Tracking_ID	Chapter	Comment	Commenter	Disposition	Response	Concurrence	Concur_Date
200EA1_ECY_1	3	This Master COPC List is not inclusive of all of the nonradiochemical contaminants that were provided to Ecology at the January 23, 2017 200-EA-1 Workshop. If the omitted constituents do not fit the criteria for exclusion, as stated in Section 3.4, they will need to be added to the Master COPC List. In addition, make sure the nomenclature for the chemical compounds and chemical spellings are all correct. A technical edit is necessary for this table prior to issuing to Ecology for the official document review.	Ecology	Justification Added	All of the compounds or elements identified in the comment meet exclusion criteria except cyclohexane. Cyclohexane is retained as a COPC. ECF-200EA1-18-0061, Development of Contaminants of Potential Concern for the 200-EA-1 Operable Unit, lists the constituents that were considered and excluded as COPCs. This ECF will be cited in Chapter 3, included as a reference in Chapter 8, listed in Appendix D. The excluded constituents will be listed in a new Appendix F, as requested by Noe'l Smith-Jackson.	Yes	9/27/18
200EA1_ECY_2	3	The text mentions a possible proposal of a conditional point of compliance for direct contact. Note that WAC 173-340-740(6)(f) is only for remedies involving 'containment of hazardous substances.'	Ecology	No Change	Comment noted. As indicated in the 'Modification_Needed' column, no modification of the workplan is needed.	Yes	8/23/18
200EA1_ECY_3	3	The table only gives parameters for radionuclides. This is for the construction worker scenario. Contamination from all depths of construction will contain nonradionuclides in addition to radionuclides.	Ecology	Justification Added	The radiological PRG values developed for the construction worker are based on the lower concentration associated with 500 mrem per year as identified in DOE O 435.1 via its reference to DOE 5400.5, Radiation Protection of the Public and the Environment, or a target risk of 1×10^{-4} . The construction worker exposure scenario is discussed further in Section 3.8.1.1; these two references will be added to this section.	Yes	10/24/18
200EA1_ECY_4	3	Note that the column, "Maximum Background Value," has no regulatory application. The 90 th percentile values are the acceptable comparison values.	Ecology	Accept	A footnote will be added to Table 3-12 to indicate the maximum background value is for information only.	Yes	9/10/18
200EA1_ECY_5	3	The document indicates that when the 95% UCL exceeds the maximum observed concentration, the maximum concentration will be used instead of the 95% UCL. The preference for the maximum over the 95% UCL does not err on behalf of protecting human health and the environment.	Ecology	No Change	Comment resolved via approved IAMIT Agreement 2018-001.	Yes	10/24/18

REVIEW COMMENT RECORD (RCR)

200-EA-1 Work Plan Comments (DOE/RL-2016-58, REV. 0)
 Commenter(s): Washington State Department of Ecology
 Date: August 2019

Tracking_ID	Chapter	Comment	Commenter	Disposition	Response	Concurrence	Concur_Date
200EA1_ECY_6	3	Discussion of uncertainty in HHRA (and ERA) should address sources of uncertainty in all steps of the risk assessment process (e.g., CEM, COPCs, exposure, toxicity, risk characterization). Sensitivity analysis or probabilistic tools could be used to provide more information.	Ecology	Accept	The following sentence will replace the first sentence in Section 3.8.1.7 "Uncertainties will be identified for each step of the human health risk assessment process (i.e. data analysis, exposure assessment, toxicity assessment, and risk characterization); sensitivity analysis or probabilistic tools could be used to provide additional information." The following sentence will added to the last paragraph of Section 3.8.2.6 "Uncertainties will be identified for each step of the ecological risk assessment process (i.e. data analysis, effects assessment, exposure assessment, and risk characterization); sensitivity analysis or probabilistic tools could be used to provide additional information. "	Yes	9/10/18
200EA1_ECY_7	3	Re BCGs, replace "background" with "biota."	Ecology	Accept with Modification	Replaced "background concentration guidelines" with "Biota Concentration Guides," consistent with CHPRC-00784, 2014, <i>Tier 1 Risk-Based Soil Concentrations Protective of Ecological Receptors at the Hanford Site</i> .	Yes	8/23/18
200EA1_ECY_8	3	Note explicitly that RESRAD-BIOTA is the software tool for implementing the screening and analysis methods in DOE-STD-1153-2002.	Ecology	Accept with Modification	The following sentence will be added for clarification "RESRAD-BIOTA is the software tool used to implement the screening and analysis methods in DOE-STD-1153-2002." Please note that DOE-STD-1153-2002, A Graded Approach for Evaluating Radiation Doses to Aquatic and Terrestrial Biota, is in the references (page 8-8).	Yes	9/10/18
200EA1_ECY_9	3	The assumption that long-term net infiltration rates will be as low as 4 mm/y in 30 years after backfilling waste sites, and stay that way for hundreds of years, does not err on behalf of protecting human health and the environment.	Ecology	Accept with Modification	Modified Section 5.10 in accordance with IAMIT Determination 2019-004.	Yes	7/22/19
200EA1_ECY_10	3	Despite statements in DOE/RL-2011-50, acknowledge that the time frame for restoration of natural shrub-steppe systems is uncertain and may take much longer than 30 years. In fact, the habitat may never be effectively restored to pre-disturbance conditions (e.g., in terms of plant diversity/abundance/structure, wildlife habitat, soil stability).	Ecology	Accept with Modification	The following text is added to address the uncertainties associated with the timeframe require for full habitat restoration. "While revegetation is an important part of waste site remediation, the timeframe for Central Plateau habitat restoration to pre-disturbance conditions is uncertain."	Yes	7/22/19
200EA1_ECY_11	3	A conditional POC in groundwater, WAC 173-340-720[8][c] should be cited, and those requirements would need to be met.	Ecology	Accept with Modification	The requested WAC 173-340-720(8)(c) citation is added to Appendix E - Potential ARARs.	Yes	10/24/18

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 Commenter(s): Washington State Department of Ecology
 Date: August 2019

Tracking_ID	Chapter	Comment	Commenter	Disposition	Response	Concurrence	Concur_Date
200EA1_ECY_12	5	Add field devices for detection of volatile organic compounds. This table has been moved or deleted	Ecology	Accept	Chapter 4, Section 4.2.1 includes the requested information regarding field devices for detection of volatile organic compounds. The table/information was previously provided in both Chapters 4 and 5. The information was redundant and was more appropriate for Chapter 4; therefore the redundant information was deleted from Chapter 5.	Yes	10/24/18
200EA1_ECY_13	5	The document discusses a cumulative impacts evaluation (CIE) but doesn't give a timeframe for this. Compliance with WAC 173-340-747(8) (Alternative fate and transport models) should not be postponed until the CIE is prepared.	Ecology	Accept	The following text is added to Section 5.6 Task 6 - Assessment of Risk, clarifying that the groundwater protection evaluation will be in compliance with WAC 173-340-747 (8). "The groundwater protection evaluation will fulfill the requirements of WAC 173-340-747(8). When site-specific models are used, the current plan is to use the vadose zone modeling tools prepared for the Cumulative Impacts Evaluation (CIE) with updated conceptual site models and parameterization as appropriate. However, if the CIE vadose zone models are not available at the time the 200-EA-1 Remedial Investigation is under preparation, site-specific models for 200-EA-1 waste sites can be used and they will also demonstrate compliance with WAC 173-340-747(8)."	Yes	10/24/18
200EA1_ECY_14	5	The closure performance standards should be corrected to WAC 173-303-610(2), and should be consistent with the text on p. 5-6, line 11.	Ecology	Accept with Modification	The Table 5-1 text indicating the (2)(a) citation is consistent with the work plan text (p. 5-6, lines 6-9). This table column is specific to alternative requirements. The following text (shown in underline) was added to Table 5-1 to clarify that only part, not all, of the closure performance standard is being referenced in the table: "Closure performance standards (WAC 173-303-610(2)(a) <u>only</u>):"	Yes	9/6/18
200EA1_ECY_15	5	This diagram needs to be updated to match with the latest pathforward for integration of RCRA TSD Units and CERCLA	Ecology	Accept with Modification	Figure modifications provided by Ecology during the 8/23/18 team meeting. The Figure 5-1 modifications are incorporated with a few wording modifications.	Yes	10/24/18

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200-EA-1 Work Plan Comments (DOE/RL-2016-58, REV. 0)
 Commenter(s): Washington State Department of Ecology
 Date: August 2019

Tracking_ID	Chapter	Comment	Commenter	Disposition	Response	Concurrence	Concur_Date
200EA1_ECY_16	App A	Provide what "Supplemental Sampling and Testing for Attenuation and Transport Processes Evaluation" represents with specific ASTM standards.	Ecology	Accept with Modification	The referenced section (A2.2.2) describes Tier II and III analyses and are to support site specific F&T evaluations. Laboratory testing for attenuation and transport processes will be performed with consideration of the geochemical and contaminant analysis of sediment and pore water. Procedures are determined by the contracting lab through use of scientific research in consultation with the client. For example, PNNL has developed their own set of procedures/methods for performing these analyses, which have been used on Hanford site for the past decade or more. Citations have been included in Table A-8.	Yes	8/28/18
200EA1_ECY_17	App A	Table A-5, it is unclear why groundwater protection values are missing for rads. In my previous comment on this table (3/30/2018), where groundwater protection values were supplied, I had noted two issues: 1) MDC values for rads were generally inadequate to evaluate groundwater protection (i.e., groundwater protection level < MDC) and should be identified as an analytical uncertainty, and 2) values listed for groundwater protection were not values currently returned with the EPA rad PRG calculator (https://epa-prgs.ornl.gov/radionuclides/) nor the ORNL rad PRG calculator (https://rais.ornl.gov/cgi-bin/prg/PRG_search?select=rad), with ORNL values higher (typically 10-1000 fold) than EPA values (presumably due to differences in modeling and/or default input values).	Ecology	Accept	Groundwater protection values are added to Table A-5 as well as a footnote that explains the source and purpose of these values.	Yes	6/11/19
200EA1_ECY_18	App A	Table A-6 includes Direct Contact values for WAC 173-340 Method C. However, there is an important related requirement that needs to be included as a footnote with Table A-6. The footnote should state: 'WAC 173-340 Method C requires that adjustments to total site risk and hazard values be made when total site risk will exceed a risk value of 1E-05 and/or total site hazard index of 1, in accordance with WAC 173-340-745(6).'	Ecology	Accept with Modification	The approach for adjusting cleanup levels for multiple contaminants or multiple pathways was previously described in Section 3.8.1.8 of the work plan. A sentence will be added to the end of footnote "b" to identify where the method is described. The sentence is as follows "The methods for calculating human health cleanup levels are described in Section 3.8.1.8 of the work plan."	Yes	10/24/18
200EA1_ECY_19	App A	Due to the potential of using EPA Method 1668a for aroclor-1254 and aroclor-1260, the method should be included within Table A-6 with the applicable analytical performance requirements	Ecology	Accept	Added Method 1668 performance requirements to Table A-6.	Yes	07/11/2019

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200-EA-1 Work Plan Comments (DOE/RL-2016-58, REV. 0)
 Commenter(s): Washington State Department of Ecology
 Date: August 2019

Tracking_ID	Chapter	Comment	Commenter	Disposition	Response	Concurrence	Concur_Date
200EA1_ECY_20	App A	Please provide a footnote for SIM. Typically, when polycyclic aromatic hydrocarbons (PAHs) are analyzed Ecology requires the use of EPA Method 8310. However, using EPA Method 8270 with SIM is also acceptable for laboratories that do not perform the standard PAH method (8310).	Ecology	Accept	The following footnote has been added: "Method 8270 (SIM) provides for data quality comparable to that of Method 8310. Equivalent methods, including Method 8310, may be substituted as described in Section A2.2."	Yes	9/6/18
200EA1_ECY_21	App A	Eco protection values in Table A-6, footnote "d" states that the lowest value from generic, Tier 1, Tier 2 sources was selected. This may be overly conservative for identifying the lowest analytical detection limit required. When identifying an appropriate eco PRG, a tiered iterative approach (favoring Hanford site specificity) should guide selection in the order: Tier 2, Tier 1, generic.	Ecology	Accept with Modification	The approach for calculating ecological cleanup levels was previously described in Section 3.8.2.7. To address the conservatism and explain the approach for calculating Ecological cleanup levels the following sentence will be added to the end of footnote d "The preliminary action level listed in this column may be conservative for identifying the highest allowable PQL; the methods for calculating ecological cleanup levels are described in Section 3.8.2.7 of the work plan."	Yes	9/10/18
200EA1_ECY_22	App A	The PCBs reference footnote "m", which states "If aroclors are not detected, additional analyses will be conducted using EPA Method 1668a to confirm that PCB congeners are not present at low levels." Due to the potential of using EPA Method 1668a, the method should be included within Table A-6 with the applicable analytical performance requirements.	Ecology	Accept with Modification	Section A3.3.2 is updated in accordance with the May 16, 2019 IAMIT agreement and IAMIT Determination #2019-003. The tables within this section describes this contingency for each of these 20 waste sites.	Yes	7/11/19
200EA1_ECY_23	App A	Provide where these data needs are addressed in the main text in Chapter 4.	Ecology	Not Accepted	The last sentence in Section A1.3 states "Section 4.2 in Chapter 4 of this work plan provides additional PSQ and data needs information."	Yes	9/5/18
200EA1_ECY_24	App A	Provide what kind of data based on which PSQ the data that will be collected to "reduce uncertainty associated with lateral and vertical extent ofcontamination."	Ecology	Accept with Modification	The Chapter 4, Table 4-3, correlates the data need with the planned field investigations defined as being sufficient during the workshops. The SAP further delineates the planned field investigations in the following areas: the surface surveys are presented in Table A-13 and the sample locations, target depths and sample analyses presented in Tables A-14 through A-19.	Yes	9/6/18
200EA1_ECY_25	App A	Provide what purpose sediment particle surface area supports in relation to contaminant migration and the ASTM standard	Ecology	Accept with Modification	The following underlined text will be included in Section A2.2.2.9: <u>Particle surface area is relevant to COPC migration for several factors including adsorption behavior, reductive/oxidative capacity, and reaction catalysis.</u> As a Tier II analysis, procedures are determined by the contracting lab through use of scientific research in consultation with the client, similar to Ecology comment #16.	Yes	8/28/18

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200-EA-1 Work Plan Comments (DOE/RL-2016-58, REV. 0)
 Commenter(s): Washington State Department of Ecology
 Date: August 2019

Tracking_ID	Chapter	Comment	Commenter	Disposition	Response	Concurrence	Concur_Date
200EA1_ECY_26	App A	Provide a definition for "sufficient" as it relates to "sufficient data". For the ultimate decision, sufficient data will never be achieved. Provide in context what is meant by "sufficient data".	Ecology	Accept with Modification	The Chapter 4, Table 4-3, correlates the data need with the planned field investigations defined as being sufficient during the workshops. The principle study questions are further defined in Chapter 4, Table 4-2, by including the related decisions rules. The SAP further delineates the planned field investigations in the following areas: the surface surveys are presented in Table A-13 and the sample locations, target depths and sample analyses presented in Tables A-14 through A-19.	Yes	9/6/18
200EA1_ECY_27	App A	Comment: This Master Target Analyte list is not inclusive of all of the list of nonradiochemical contaminants that were provided to Ecology at the January 23, 2017 200-EA-1 Workshop. This finding was also documented in Ecology's Informal Comments for Chapter 3 of the 200-EA-1 OU Work Plan.	Ecology	Accept with Modification	The table will be updated consistent with the response to comment #1 related to Table 3-9.	Yes	9/27/18
200EA1_ECY_28	General	The document is inconsistent in its use of the terms "Target Analytes" and "Contaminants of Potential Concern". Table 3-9 identifies the list as the Master COPC List. Whereas, Appendix A (SAP) identifies the list as the Master Target Analyte List. Both tables include the same list of radionuclides, inorganics, and organics.	Ecology	Accept	Table A-2 will be updated for consistency with Table 3-9. Text leading into Table A-2 will also be modified to show the integration with Section 3.4 of Chapter 3.	Yes	9/6/18

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200-EA-1 Work Plan Comments (DOE/RL-2016-58, REV. 0)
 Commenter(s): Washintgon State Department of Ecology
 Date: August 2019

Tracking_ID	Chapter	Comment	Commenter	Disposition	Response	Concurrence	Concur_Date
200EA1_ECY_29	5	The CIE purpose is to provide a basis for evaluating cumulative impacts and it is not yet agreed that it will meet the requirements of WAC 173-340-747(8)	Ecology	Accept with Modification	<p>A portion of the identified sentence is deleted and updated as indicated below. The crosswalk associated with WAC 173-303-747(8) is now discussed in Section 5.6 Task 6 - Assessment of Risk, in accordance with the response to comment #13.</p> <p>The Section 5.10 Task10 - Detailed Analysis of Alternatives, is updated as follows: "The CIE will fulfill the requirements of WAC 173-340-747(8), "Deriving Soil Concentrations for Groundwater Protection," and will evaluate long-term groundwater impacts to enable informed decision making and provide context for alternatives analysis in the FSs for the 200 EA 1 OU and other source OUs. The crosswalk (as discussed in Section 3.8.3 of Chapter 3) will be developed or evaluated to identify any unique application aspects considering the 200 EA 1 OU waste sites. It could also serve as a planning tool to provide a reasonable expectation that remedial actions and waste disposal activities will not result in the need for future corrective or remedial action to protect HHE (DOE M 435.1 1, Radioactive Waste Management Manual). The CIE will be documented in a regulatory-approved approach document."</p>	Yes	10/24/18
200EA1_ECY_30	6	The workplan must have a schedule with actual dates. A milestone package must be submitted with this document that contains actual dates for submittal of the RI/FS	Ecology	Accept with Modification	<p>Sentence deleted as requested. The Figure 6-1 schedule updated to indicate interim milestone M-015-92B. This figure, as updated, is in compliance with the requirements of the HFFACO Action Plan Section 11.6. At this time, no additional interim milestones are planned or proposed.</p> <p>The first paragraph of Chapter 6 updated to reference this interm milestone, identify the durations as an estimate, and clarify the project schedule will vary based on several factors, including field investigation findings and potential contingent sampling.</p> <p>Open action: An interim milestones change control form will be provided for signature as part of the ongoing 200 Area Central Plateau Agreement In Principle discussions. Figure 6-1 schedule is planned for update following agreemnt on this change control form.</p>	No	

REVIEW COMMENT RECORD (RCR)

200 EA-1 Work Plan (DOE/RL-2016-58, REV. 0)

Commenter(s): EPA

Date: August 2019

Tracking_ID	Chapter	Comment	Commenter	Disposition	Response	Concurrence	Concur_Date
200EA1-WP-1	General	The Work Plan must contain an enforceable schedule and we strongly suggest the development of enforceable interim milestones that will be submitted to Ecology for approval with the nearly final Revision 0 of the Work Plan and will drive work toward completion and eventual cleanup actions. We also strongly recommend that there be text in the Work Plan helping to define things like the start of field work so that there is no ambiguity in what must be met to comply with the schedule.	EPA	Accept with Modification	Comment is being addressed through Ecology's comment #30. The TPA change control form M-15-18-04 associated with defining the M-015-92B due date will be signed concurrent with the Work Plan signatures.	Yes	10/24/2018
200EA1-WP-2	General	We suggest that EPA Region 10's RCRA program also review relevant sections of the work plan since this is one of the newest work products of the RCRA and CERCLA integration that is called for under the Tri-Party Agreement.	EPA	No Change	Menard said DOE and Ecology have been working extensively with the EPA RCRA program regarding integration.	Yes	9/27/2018
200EA1-WP-3	General	Infiltration rates and the expected revegetation success factored into the feasibility study evaluations are clearly areas where the Tri-Parties have not closed the gap in expectations and we welcome the proactive process we are beginning to use to land on appropriate ranges of values and offer our assistance and that of U.S. Geologic Survey technical support.	EPA	Accept with Modification	Comment is being addressed through Ecology's comment #9.	Yes	9/27/2018
200EA1-WP-4	General	There are questions on a broader level about how this OU fits within the cleanup efforts that will eventually have to be done within the tank farm areas. We would welcome a higher-level discussion on how to integrate these efforts and how the Office of River Protection is going to participate.	EPA	Accept with Modification	The integration is discussed in the 200-EA-1 Work Plan; specific examples include: 1) Chapter 1, Section 1.4 'Integration with Other Activities' 2) Chapter 1, Table 1-1 'Inner Area OUs and Tank Farms that Potentially Interface with the 200-EA-1 OU' 3) Chapter 5, Section 5.1.3 'Operable Unit and Other Project Integration' where CHPRC modified the following sentence to read, "To integrate with other Central Plateau source OUs, facilities, and WMAs, 200-EA-1 OU activities will include the following." (added text is underlined). Within this same section, the following sentence is also added consistent with our team discussions with EPA and Ecology on 10/24/2018: 'This integration will occur throughout the project, and as appropriate, will consider incorporating via a plug-in approach during the decision making process.'	Yes	9/27/2018
200EA1-WP-5	General	EPA is concerned that DOE is backtracking on distinctions between the Inner and Outer Area of the Central Plateau that are described in the 200-PW-1/3/6 and 200-CW-5 Record of Decision and in Action Memoranda for waste sites formerly in the 200-MG-1 and 200-MG-2 OUs. In the Inner Area Principles, EPA and Ecology agreed that the Inner Area would not be shrunk further but that was with the understanding, as described in the aforementioned decision documents, that the Outer Area would be cleaned up consistent with the River Corridor operable units. If DOE means to apply industrial cleanup standards to the Outer Area, this is something new and must be discussed with EPA and Ecology.	EPA	No Change	Comment noted. Outer Area decisions are outside 200-EA-1 scope.	Yes	9/27/2018
200EA1-WP-6	General	We want to ensure that the risk assessments performed under the RI/FS will comply with EPA guidance and that Tribal engagement is occurring as part of the RI/FS process.	EPA	No Change	Comment noted. Compliance with EPA guidance is discussed in Section 1.3.2, Central Plateau Inner Area Cleanup Principles, and Section 3.8, Risk Assessment Approach. Tribal consultation is discussed in Section 5.2.1.	Yes	9/27/2018
200EA1-WP-7	General	Issues regarding the use of RESRAD and the Preliminary Remediation Goal Calculator should be resolved early as to avoid delays in working through policy and HQ concurrence of the future draft Record of Decision/Corrective Action Decision.	EPA	No Change	Comment noted. The Tri-parties are discussing this issue. The issue does not impact the work plan.	Yes	9/27/2018
200EA1-WP-8	General	The point of departure for the allowable risk for radionuclides needs to be explained in the context of the reasonably anticipated future land use (industrial). During the baseline risk assessment, once a need for action has been established, the goal needs to begin at the 1x10 ⁻⁶ excess cancer risk and then a case can be made for the use of higher risks within the CERCLA risk range. The difference in meeting various risks may affect the volumes removed or other aspects of feasible alternatives.	EPA	Accept with Modification	To address the point of departure for radionuclides, the following text is added to the end of Section 3.4. "During the BRA, all radiological and nonradiological results will be screened at the point of departure (the lower of 1 x 10 ⁻⁶ or hazard quotient of 0.1) for industrial land use scenario. All results greater than the point of departure will be evaluated quantitatively for the scenarios described in Section 3.6.1."	Yes	10/24/2018

REVIEW COMMENT RECORD (RCR)

Tracking_ID	Chapter	Comment	Commenter	Disposition	Response	Concurrence	Concur_Date
200EA1-WP-9	General	How will future building decontamination and demolition and subsequent leftover slabs be investigated and addressed by the cleanup of this OU, especially for buildings that will not be demolished for many years?	EPA	Accept with Modification	Section 1.4 and Table 1.1 updated to include a section for 'Facilities'; the new section has one row that states: 1st column addition: 'Buildings and structures' 2nd column addition: 'Includes the multiple buildings and structures used for material handling and processing, storage, maintenance, administrative, or support activities. These facilities are being addressed in accordance with Section 8.0, Facility Disposition Process of the Tri-Party Agreement Action Plan (Ecology et al, 1989b)' Sentence in Section 5.1.3 also modified to read, "To integrate with other Central Plateau source OUs, facilities, and WMAs, 200-EA-1 OU activities will include the following." (added text is underlined).	Yes	10/24/2018
200EA1-WP-10	General	EPA R 10 has been evaluating ARAR consistency and what constitutes an ARAR and any lessons from that process we will provide to support this project as well as others at Hanford.	EPA	No Change	Comment noted.	Yes	9/27/2018
200EA1-WP-11	General	The vast amount of upfront characterization (instead of relying somewhat on the representative-analogous sites approach and verifying things after the cleanup decision) spreads out the funding and expands the time it takes to begin cleaning up waste sites in the OU. This is primarily because there is so much field characterization and it is likely to be metered out due to budget constraints and other sitewide priorities. EPA has commented on this before and is going on the record again to point out the drawbacks of doing so much up-front characterization beyond what is likely necessary to make a good cleanup decision.	EPA	Justification Added	Comment noted. Text is added to Chapter 4, 2nd bullet in Section 4.1, to indicate that informaton from similar waste sites was used during the DQO process. The underlined text represents the added text within this bullet: 'Evalauted 200-EA-1 OU existing information, including similar site information, during a series of workshops wiht Ecology ...'	Yes	10/24/2018
200EA1-SAP-1	App A	EPA appreciates that improvements to previous Hanford SAPs have been captured in this SAP (for example, relating the HASQARD data validation levels to EPA guidance levels).	EPA	No Change	Thank you. Comment noted.	Yes	9/27/2018
200EA1-SAP-2	App A	Section A2.2.2 and its subsections cover a great number of potential evaluations that would be nice to do but are potentially unnecessary. The section and its subsections should be more specific about what would trigger more studies and the other tiers otherwise some unnecessary expenditures could take place without evaluating whether something is really required to complete the RPI/CMS RI/FS process. Language near the end of the main section gives too much latitude to the contractor technical lead to decide about moving on to other tiers and what is to be done without mention of checking in with DOE and the lead regulatory agency, and EPA.	EPA	Accept with Modification	The SAP (Appendix A), Section A.2.2.2, text is clarified and the following sentence added: 'The OU project manager or delegate will inform the DOE-RL project lead and regulatory agencies of determinations for additional testing.'	Yes	10/24/2018
200EA1-SAP-3	App A	It is unfortunate that sampling and analysis under a similar SAP for 200-W A-1 has not begun as there would likely have been some additional lessons learned that could have helped improve the effort for 200-EA-1 as they have similar mixes of types of waste sites. For example, the railroad sampling for 200-WA-I was cited but none of that has actually been done, yet.	EPA	No Change	Comment noted.	Yes	9/27/2018
200EA1-SAP-4	App A	In Section A.3.2.5 there is a discussion about minimizing the effects of radiological limits on being able to pull samples. There should be some language about involving DOE and the regulatory agencies to help decide what to do when a zone is encountered underground that is so hot radiologically.	EPA	Accept	The text reflects workshop conversations during the DQO process. The following text is added to the SAP, Section A.3.2.5, to discuss this involvement: 'The OU project manager or delegate will inform the DOE-RL project lead and regulatory agencies of determinations limiting sample collection.'	Yes	10/24/2018