



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

3100 Port of Benton Blvd • Richland, WA 99354 • (509) 372-7950
711 for Washington Relay Service • Persons with a speech disability can call (877) 833-6341

April 23, 2021

21-NWP-066

Michael W. Cline, Director, Soil and Groundwater Division
Richland Operations Office
United States Department of Energy
PO Box 550, MSIN: H5-30
Richland, Washington 99352

Re: *Remedial Action/Feasibility Study Work Plan: 200-CP-1 Operable Unit* (DOE/RL-2020-27, Draft A)

Reference: See page 2

Dear Michael W. Cline:

The Department of Ecology (Ecology) received the submittal of the above referenced document from the United States Department of Energy (USDOE) on September 22, 2020 (Reference). USDOE submitted the Remedial Investigation/Feasibility Study (RI/FS) Work Plan to fulfill the Hanford Federal Facility Agreement and Consent Order (HFFACO) Milestone M-085-80, due September 30, 2020.

In accordance with the Tri-Party Agreement, Section 9.2.1, Ecology reviewed the referenced document. Ecology's preliminary review of the work plan shows that it does not consider the "program goal, expectations, and program management principles" contained in the Code of Federal Regulations 40 CFR 300.430. There are substantial differences between Ecology's and USDOE's understanding of the required scope of the work plan.

Many of our concerns with the RI/FS work plan center around the lack of needed investigation to characterize the nature and extent of contamination within the facility. This investigation needs to be representative of the various areas within the facility, including the process cells. Verification of the condition within the canyon facility would allow for a better understanding of the classification of materials, including those that would remain Transuranic waste. Alternatives cannot be properly compared if there are data gaps with the contents in the facility.

Enclosed is the Review Comment Record (RCR) with Ecology's comments. We look forward to resolving our comments with USDOE.

Michael W. Cline
April 23, 2021
Page 2 of 2

21-NWP-066

Ecology is submitting a copy of the RCR to the Administrative Record in accordance with the Tri-Party Agreement, Section 9.4.

If you have any questions, please contact me at john.temple@ecy.wa.gov or (509) 372-7929, or Brigitte Weese, Project Lead, at brigitte.weese@ecy.wa.gov or (509) 372-7936.

Sincerely,

Temple,
John (ECY)

Digitally signed by
Temple, John (ECY)
Date: 2021.04.23
08:43:29 -07'00'

John Temple
Facility Transition Project Manager
Nuclear Waste Program

bw/jlg
Enclosure

Reference: Letter 20-SGD-0068, dated September 22, 2020, "Remedial Investigation/Feasibility Study Work Plan for the 200-CP-1 Operable Unit, DOE/RL-2020-27, Draft A"

cc electronic:

Dave Bartus, EPA	Laurene Contreras, YN
Craig Cameron, EPA	ERWM Staff, YN
David Einan, EPA	Susan Leckband, HAB
Jason Capron, USDOE-RL	David Reeploeg, Hanford Communities
Duane Carter, USDOE-RL	Max Woods, ODOE
Naomi Jaschke, USDOE-RL	Edward Holbrook, Ecology
Tony McKarns, USDOE-RL	Theresa Howell, Ecology
Allison Wright, USDOE-RL	John Price, Ecology
Sara Austin, CPCCo	Stephanie Schleif, Ecology
William Faught, CPCCo	John Temple, Ecology
Randal Fox, CPCCo	Brigitte Weese, Ecology
Laura O'Mara, CPCCo	Environmental Portal
Deborah Singleton, CPCCo	Hanford Administrative Record
Stephanie Brasher, HMIS	Hanford Facility Operating Record
Scott Davis, HMIS	CPCCo Correspondence Control
Jon Perry, HMIS	EPA Region 10 Hanford Field Office
Steve Szendre, HMIS	Correspondence Control
Mason Murphy, CTUIR	HMIS Correspondence Control
Jack Bell, NPT	USDOE-RL Correspondence Control
Rex Buck, Jr., Wanapum	

Comment Record

Washington State Department of Ecology Nuclear Waste Program

Date: 11/11/20

Page 1 of 21

Document Title(s)/Number(s):

Remedial Action/Feasibility Study Work Plan: 200-CP-1 Operable Unit (DOE/RL-2020-27, Draft A)

Document Manager	Telephone Number	Project Manager	Telephone Number	Facility Site ID	Cleanup Site ID
Brigitte Weese	(509) 372-7936	John Temple	(509) 372-7929		

Item No.	Pg. # Sec. # Para./Sent.	Comment or Question	Modification Needed	Basis/Justification	Permittee Response	Ecology Response	Open/ Close	Reviewer Initials
1.	General	<p>The work plan lacks investigation to characterize the nature and extent of contamination inside the facility. This information needs to be representative of the various areas within the facility, including the process cells. That information is needed not only for understanding what is allowed to remain in the canyon if it has a similar remedy to U Plant, but also to do at least a qualitative risk assessment for an intruder to help warrant the need for remedial action. This is in addition to the template language used for D&D about how the facility will degrade over time and pose a risk of release.</p> <p>Verification of the condition within the canyon facility would allow for a better understanding of the classification of materials, including those that would remain TRU waste. Alternatives can not be properly compared if there are data gaps with the contents in the facility.</p>	<p>The level of detail within the work plan does not align with what Ecology needs to complete a robust RI/FS.</p> <p>See comment</p>					
2.	General	Modeling of fate and transport out of the building towards groundwater over a 1000 year time frame should also be conducted (similar to what was done for U Plant.)	See comment.					
3.	General	With respect to the concept of bringing other waste to the PUREX Canyon, please describe in the work plan how PUREX will meet the landfill closure requirements in WAC 173-303-665 and how this concept aligns with land use decisions for the central plateau. It is unclear how this work plan "considers the potential for disposal of other Hanford Site wastes in the PUREX Canyon facility" as described in the introduction.	Elaborate on the concepts described for how the Canyon facility will be used. Sampling and closure requirements to meet the closure performance standard should be included. It is unclear how the canyon facility will meet landfill closure requirements and how disposing of other Hanford wastes in the Canyon is beneficial.					

Comment Record

Washington State Department of Ecology Nuclear Waste Program

Date: 11/11/20

Page 2 of 21

Item No.	Pg. # Sec. # Para./Sent.	Comment or Question	Modification Needed	Basis/Justification	Permittee Response	Ecology Response	Open/Close	Reviewer Initials
4.	General	Sampling and analysis or performance assessments to support LDR treatment variability, in particular, for HLW, are not described in the RI/FS work plan.	Please clarify whether USDOE intends to perform a Waste Incidental to Reprocessing evaluation for HLW in 200-CP-1 and the PUREX Canyon and whether a performance assessment, additional investigatory sampling, or other analysis is anticipated to support this.					
5.	General	The work plan includes waste sites that are in the A/AX study area and residual waste from these sites was included in the performance assessment for WMA A/AX.	Please clarify how the performance assessment for A/AX and the RFI/CMS for A/AX will be integrated with the 200-CP-1 RI/FS work plan.					
6.	General	Waste sites within the footprint of a cover have limited data or contain process knowledge that conflicts with statements that no additional data collection is necessary. In addition, some of these are RCRA units in Rev. 9 of the Hanford Site-Wide Permit and require additional data collection to support clean closure or a demonstration that clean closure of the unit cannot be practicably performed.	Please include additional information on how data will be collected to determine the nature and extent of contamination of waste sites anticipated to be under the landfill cover, including those which will undergo coordinated closure.					
7.	General	DOE needs to explain throughout this work plan their strategy to conduct sampling. This includes DOE's plan for sampling of RCRA DWMUs. If DOE elects not to sample, a thorough explanation as to why sampling is not needed must be provided, as well as, the process knowledge/historical documentation that that supports the decision.	See comment					
8.	Page ix, Executive Summary, Lines 9-10	The text states the following: <i>Completing the RI to determine the final basis for action. Note that existing information has been deemed sufficient to define a basis for action for the 202A Canyon.</i> Where are the references and documentation to support this statement?	DOE needs to provide a reference to another document or another section of this work plan that explains why existing information has been deemed sufficient.					
9.	Page 1-1, Section 1, Line 5	Please include a statement that the work is being performed under CERCLA and will be coordinated with the RCRA closure for applicable units in accordance with the HFFACO.	See comment					

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 3 of 21

10.	Page 1-1, Section 1, Line 19	There are 48 DWMUs within the PUREX Complex, not 45.	This information does not match what is contained in the PUREX Part A document. Please correct this statement.					
11.	Page 1-5, Figure 1-3	USDOE will need to close applicable emission units using the Notice of Transition (NOT) process to CERCLA prior to performing demolition work.	For structures that are emission units listed in the FF-01, Table 2-1, USDOE should follow the same process used to transition EUs with licenses in the FF-01 to CERCLA, i.e. the Notice of Transition (NOT) process.	Demolition activities are not allowed for the emission units listed in Table 2-1 of current FF-01 as these are classified as non-operational diffuse & fugitive units. RADIOACTIVE AIR EMISSIONS LICENSE For the Department of Energy Richland Office Hanford Site Issued by The State of Washington Department of Health Office of Radiation Protection Radioactive Air Emissions License Number: FF-01, Table 2-1. The List of Current Diffuse or Fugitive Radioactive Air Emission Sources at the Hanford Site. See Section 5.0, Method for Monitoring and Reporting of Diffuse and Fugitive Sources and Emissions, of the License for a description of monitoring and reporting requirements.				
12.	Page 1-8, Section 1.3.2.2, Line 29	Provide more details on "default EPA industrial scenario" (e.g., source terms, exposure pathways, receptors). For example, refer to Sections 3.7 through 3.9, including Figure 3-3.	See comment					
13.	Page 1-8, Section 1.3.2.2, Line 30	Clarify that an EPA cumulative cancer risk limit of 1E-4 (upper limit of CERCLA 1E-6 to 1E-4 risk range) should not apply to nonrads, because MTCA specifies a more stringent cumulative cancer risk limit of 1E-5 for nonrads. Accordingly, the EPA cumulative risk limit of 1E-4 applies only to rads.	See RCR #64					
14.	Page 1-8 to 1-9, Section 1.3.2.2	Add a bullet to the BRA for ecological risk assessment for plants, soil biota, and wildlife (birds and mammals).	See comment					
15.	Page 1-9, Section 1.3.2.2, Line 1	State that the groundwater CUL (and corresponding soil CUL to protect groundwater) will employ MCLs or MTCA Method B (based on beneficial use as drinking water).	See comment					

Comment Record		Washington State Department of Ecology Nuclear Waste Program					Date: 11/11/20	
							Page 4 of 21	
16.	Page 1-9, Section 1.3.2.2, Line 5-6	Cite: Central Plateau Inner Area Cleanup Principles and Parameters, DOE/RL-2019-46, Rev 0.	See comment					
17.	Page 1-9, Section 1.3.2.3, Line 17-20	State that the groundwater CUL (and corresponding soil CUL to protect groundwater) will employ MCLs or MTCA Method B (based on beneficial use as drinking water).	See comment					
18.	Page 1-9, Section 1.3.2.3, Line 21-22	Re groundwater protection, "describe the "five unique areas of the Central Plateau."	See comment					
19.	Page 1-10, Section 1.3.2.5, Line 3-4	Re a conditional POC for terrestrial eco receptors at Hanford, Ecology has not accepted a conditional POC but instead supports the standard POC. https://setac.onlinelibrary.wiley.com/doi/full/10.1002/ieam.4044	Provide evaluation using the standard eco POC.					
20.	Page 1-12, Table 1-1, "SST WMAs and DST Farms"	Please include SST farm soils in the description of the TSD unit.	See comment.					
21.	Page 1-12, Table 1-1	DOE proposed to Ecology during a meeting to incorporate some of the pipelines in 200-IS-1 to 200-CP-1. If DOE plans to pursue this, DOE needs to include a plan to sample these pipelines. Does the 200-IS-1 work plan already contain the applicable scoping summaries?	See comment					
22.	Page 2-3, Figure 2-1	Figure 2-1 has a mixture of present and past tense when describing process. In particular, header indicates that PUREX still "provides chemical decladding and dissolution of irradiated fuel elements..."	Revise for consistency with rest of work plan regarding production activities (past tense), in header/description perhaps note that these operations were provided prior to deactivation					
23.	Page 2-4, Figure 2-1, 202A Building Summary Description	Text states that "Offices, locker rooms, laboratory facilities, ventilation equipment rooms, electrical switchgear, main operating control panels, and aqueous make-up facilities are located in the annexes which are not in the scope of the 200-CP-1 Operable Unit." It appears that certain facilities falling into these general categories are within 202A and are part of the OU, such as the East Mezzanine Support Rooms.	Please revise to acknowledge support facilities may or may not be part of the OU or to better clarify the facilities being excluded in this statement.					
24.	Page 2-4, Figure 2-1, 202A Building Summary Description	Hot Shop and Pool Cell do not seem to be addressed in 202A Building Summary Description.	Add a brief description of Hot Shop & Pool Cell to the summary, potentially as a combined group with M Cell if that makes more sense.					

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 5 of 21

25.	Page 2-6, Figure 2-1, PUREX Liquid Waste Stream Discharge Sites	200-E-68 is listed as a waste site from the Utility systems but is not in the PUREX Liquid Waste Stream Discharge Sites table.	Add 200-E-68 to table.					
26.	Page 2-20, Section 2.6.3.2 Hydrogeology, Figure 2-8	Is this figure derived from the 2018 Sitewide groundwater monitoring report, from a 2018 groundwater determination report, or other source?	Provide reference for source of data/figure.					
27.	Page 2-21, Section 2.6.3.2 Hydrogeology, Figure 2-9	Is this figure derived from the 2018 Sitewide groundwater monitoring report or 2018 RCRA groundwater monitoring report, from a 2018 groundwater determination report, or other source?	Provide reference for source of data/figure.					
28.	Page 3-4, Table 3-3 and Page A-69, Figure A-6	Sampling location 200-E-44 has known low-volume liquid releases.	Describe the proficiency of the proposed random sampling with limited sampling locations (e.g. location 200-E-44, 12 samples). Will sample results be entered back into VSP to determine the validity of the estimated standard deviation? Is there a contingency to increase the number of sampling locations based on VSPs statistical evaluation?					
29.	Page 3-4, Table 3-3 and Page A-75, Figure A-12	Sampling location 200-E-107 has known surface contamination.	As seen in Figure A-12, randomized grid sampling can allow for areas of low sampling coverage, discuss the decision to use randomized grid sampling instead of systematic grid sampling.					
30.	Page 3-5, Section 3.2.2.2 Groundwater Monitoring, Lines 9-11	Text reads "The liquid waste disposal has resulted in plumes of tritium, iodine-129, nitrate, and uranium beneath the 200-CP-1 OU...It is uncertain whether uranium from the 200-CP-1 OU is impacting groundwater." It is noted that Figures 3-1 and 3-2 both indicate a Uranium groundwater contaminant plume located beneath and east of the PUREX facility. Is the source of this Uranium plume undetermined? Is there another likely/confirmed source other than 200-CP-1?	Clarify/revise text as necessary to resolve discrepancy between text and figures.					
31.	Page 3-5, Section 3.2.2.2 Groundwater Monitoring	Were any surveys done in the past to assess liquid waste released to soils in the vicinity of 202A?	See comment.					

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 6 of 21

32.	Page 3-9, Section 3.3.3, 2 nd Para.	Document states, "For the PUREX Complex removal action documents, DOE/RL-2016-15 describes the alternative analysis for the PUREX Complex removal action."	Describe the alternative analysis in DOE/RL-2016-15 and the associated quality control criteria associated with these analysis.					
33.	Page 3-14, Table 3-3 and Page A-77, Figure A-14	Sampling location 200-E-103 has known surface contamination and partial-thickness Vadose zone contamination.	As with other sampling locations, a randomized grid sampling approach allows for larger unsampled areas, discuss the advantage of randomized grid sampling over systematic grid sampling for this sampling location.					
34.	Page 3-15, Section 3.4.1 Nature and Extent of Contamination Table 3-3	Table entry for 216-A-2-Crib and 216-A-4-Crib indicates potential for full-thickness vadose zone contamination and includes U-233/234 and U-238. This seems consistent with the text on page 3-5 citing release of Uranium and seems to correlate with the Uranium groundwater plume depicted on Figures 3-1 and 3-2. Again looking at the text on page 3-5 lines 10-11 where is the uncertainty that Uranium has not impacted the groundwater at this site?	Clarify uncertainty of prior releases of Uranium to the ground and correlation of prior detection of Uranium in the groundwater at the site.					
35.	Page 3-16, Section 3.4.1 Nature and Extent of Contamination Table 3-3	Table entry for 216-A-21-Crib indicates potential for full-thickness vadose zone contamination and includes U-238. This seems consistent with the text on page 3-5 citing release of Uranium and seems to correlate with the Uranium groundwater plume depicted on Figures 3-1 and 3-2. Again looking at the text on page 3-5 lines 10-11 where is the uncertainty that Uranium has not impacted the groundwater at this site?	Clarify uncertainty of prior releases of Uranium to the ground and correlation of prior detection of Uranium in the groundwater at the site.					
36.	Page 3-17, Table 3-3, "241-A-151" and "241-A-302A"	The 241-A-151 Diversion Box and the 241-A-302A catch tank are included in the WMA A/AX performance assessment, RPP-ENV-62206, Rev. 0. The PA cites contamination released to soil from this diversion box, which conflicts with information in Table 3-3 of the this work plan. In the same performance assessment document, the 241-A-302A catch tank inventory is included in the model. The PA states that the 241-A-302A inventory will be removed from future analyses to align with the study area in the RFI/CMS. Please clarify how the inventory will be accounted for in the 200-CP-1 RI/FS work plan approach.	Please explain how the WMA A/AX performance assessment will be integrated with the 200-CP-1 work plan data collection approach and/or considered for future decision making. Please update Table 3-3 to address the known liquid release to soil from 241-A-151.					

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 7 of 21

37.	Page 3-18, Section 3.4.2, Line 17-18	The document states "there is no evidence that contamination was released through the structure to the surrounding soil."	Please provide additional information to support this statement, such as surveys that have been conducted in the area, or include in the work plan how it will be demonstrated that no contamination was released to soil at 202A. In addition, this paragraph states that releases that occurred during operations or after deactivation include structures such as the diversion box, which conflicts with information in Table 3-3.					
38.	Page 3-18, Section 3.4.2, Last Paragraph	Statement that "Releases occurred within process cells and galleries that occurred during changes in equipment piping configuration" sounds like only small, incidental, releases occurred during connection/disconnection of fittings. This would not reasonably cover E Cell leak, the silver reactor explosion in A Cell, etc.	Revise statement to better address the variety and severity of contamination events which occurred.					
39.	Page 3-19, Table 3-4	This table should be updated to confirm no release to soil during the RI. The RI/FS work plan discusses potential for landfill closure of this area, with no planned investigations of releases and no documentation to confirm there were not past leaks.	Have field screening techniques been employed in the past to confirm no releases to soil? A more robust investigation approach to the 202A Canyon area is needed.					
40.	Page 3-19, Section 3.4.2, Table 3-4	"Current Area Understanding" for A, B, and C Cells does not include 1958 silver reactor release which may have left difficult to detect/read contamination.	Address hard to reach contamination from silver reactor release in Current Area Understanding column.					
41.	Page 3-19, Section 3.4.2, Table 3-4	"Current Area Understanding" for F Cell does not include leakage from Storage Gallery and subsequent shielding with concrete bricks which may have left difficult to detect/read contamination.	If 1959 spill may have spread into F Cell wall or cell itself include in Current Area Understanding column.					
42.	Page 3-20, Section 3.4.2, Table 3-4	"Current Area Understanding" for the PR Room and PR corridor does not include 1982 leak from L Cell and 1966 PR can and subsequent paint applications.	Add releases and include other surfaces in list of what has been painted over to the Current Area Understanding column.					

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 8 of 21

43.	Page 3-21, Section 3.4.2, Table 3-4	Current Area Understanding for the Air Tunnel doesn't indicate the significant uncertainty about the severity and extent of contamination in this area.	Note lack of information and on potential severity of contamination in the Current Area Understanding column for the Air Tunnel.					
44.	Page 3-21, Section 3.4.2, Table 3-4	Cranes, Crane Cab Gallery, and Maintenance Platforms section does not note that dangerous/potentially dangerous wastes were intentionally left in place.	Note in that crane fluids and HEPA filters were left in place in the Current Area Understanding column.					
45.	Page 3-21, Section 3.4.2, Table 3-4	Cranes, Crane Cab Gallery, and Maintenance Platforms section does not note that processes contaminated this area through repeated flooding and tool movement. As written it might be assumed that the upper areas of PUREX were relatively free of process contamination.	Briefly address process cross-contamination in Current Area Understanding column.					
46.	Page 3-21, Section 3.4.2, Table 3-4	EMSR section does not note 1960 contamination event. 1958 event could also be noted but appears to be less important.	Address 1960 event and potentially 1958 event in Current Area Understanding column					
47.	Page 3-21, Section 3.4.2, Table 3-4	Storage Tunnels 1 & 2 are not addressed in the table.	Add Storage Tunnels 1 & 2.					
48.	Page 3-22, Section 3.4.2, Table 3-4	"Storage Gallery, PIV Room, and The Tomb" section potentially downplays contamination events and the fact that they have been shielded/covered using concrete bricks. Without discussion it might be assumed that storage and unused voids were not significantly contaminated.	Add statement regarding multiple leak events and shielding of contamination.					
49.	Page 3-22, Section 3.4.2, Table 3-4	"White Room, Canyon Lobby, Storage Area" section does not address that unidentified/degraded materials and abandoned equipment remain in these areas.	Address current conditions.					
50.	Page 3-25, Section 3.5, 1st Para.	Document states, "The first document, D&D-33703, Data Quality Objectives Summary Report for Characterization of the 202-A Building (PUREX Canyon), published a final list of COPCs for the PUREX Canyon and the equipment within (Table 1-8 in D&D-33703). D&D-33703 also documents the constituents that were excluded and the basis for exclusion (Table 1-7 in D&D-33703)."	Describe the exclusion of constituents based on D&D-33703 to determine the final list of constituents in 200-CP-1 SAP.					

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 9 of 21

51.	Page 3-26, Section 3.5, Para. 2 and 3	Document states, "The second document, ECF-200EA1-18-0061, Development of Contaminants of Potential Concern for the 200-EA-1 Operable Unit, provides the basis for the COPCs included for the 200-EA-1 OU." and "The COPC lists from D&D-33703 and ECF-200EA1-18-0061 were combined and reviewed to confirm the selected COPCs are consistent with current guidance and the list was modified as necessary."	Is there a comparison of "ECF-HANFORD-20-0067, 200-CP-1 Final COPC Lists for Waste Sites and Structures Sites, lists the constituents that were considered and excluded as COPCs." and the documents used to determine COPCs (D&D-33703 and ECF-200EA1-18-0061)? How was it determined that these sites are representative of the constituents at 200-CP-1?					
52.	Page 3-27, Section 3.5.1 Contaminants That May Impact Groundwater, Lines 3-7 and Table 3-6	Text addresses contaminants associated with 20-CP-1 which have been detected in the groundwater including Uranium and Uranium isotopes. Again looking at the text on page 3-5 lines 10-11 where is the uncertainty that Uranium has not impacted the groundwater at this site?	Clarify uncertainty of prior releases of Uranium to the ground and correlation of prior detection of Uranium in the groundwater at the site.					
53.	Page 3-29 Section 3.6.2 Groundwater Use, Lines 3-6	Text reads "Groundwater underlying the Central Plateau will not become a drinking water source until cleanup criteria are achieved. The DOE long-term goal is to restore Central Plateau groundwater to beneficial use unless restoration is determined to be technically impracticable." Disagree with the blanket phrasing suggesting that drinking water use may be achievable. DOE/RL-2009010, Rev 1 states "For areas of groundwater contamination in the Central Plateau, the goal is to restore the aquifer to achieve drinking water standards whenever practical."	Seems that some text revision regarding future beneficial uses of groundwater may be appropriate.					
54.	Page 3-29, Section 3.7, Line 14-15	Explain why a construction worker scenario is evaluated only for rads (and not nonrads too).	See comment					
55.	Page 3-29, Section 3.7, Line 19	Re a conditional POC for terrestrial eco receptors at Hanford, Ecology has not accepted a conditional POC but instead supports the standard POC. https://setac.onlinelibrary.wiley.com/doi/full/10.1002/ieam.4044	Provide evaluation using the standard eco POC.					
56.	Page 3-30, Section 3.9, Line 31-33	Re waste inside 202A process cells, its "heterogeneous and highly radioactive nature" should not exclude evaluation of all relevant exposure pathways and receptors. In addition to leaching to groundwater, exposure pathways should include direct contact, external exposure, and eco risk.	See comment					

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 10 of 21

57.	Page 3-32, Section 3.9.1.1, and Page A-21 – A-25, Table A-7	The document discusses the outdoor worker as the only scenario under consideration, though Section 3.9.1 describes a construction worker scenario that will be used in deciding remedial alternatives. See WAC 173-303-610(2) regarding the applicable portions of WAC 173-340 for TSD units undergoing clean closure. WAC 173-340 describes the reasonably maximally exposed scenarios required where WAC 173-303 regulations apply.	Use exposure scenarios consistent with applicable scenarios given in the sections of WAC 173-340 referenced in WAC 173-303-610(2).					
58.	Page 3-32, Section 3.9	Risk characterization should be performed for the soil waste sites close to the 202A Canyon. It is unclear how either, 1) full RTD, or 2) a barrier could be placed and the landfill closure requirements met without this characterization.	See comment.					
59.	Page 3-32, Section 3.9, Line 1-2	Text states, "Risk characterization is not planned for soil waste sites that are located close to the 202A Canyon and will be addressed by the proposed remedial alternatives." As part of a CERCLA BRA, however, risk should be evaluated for a no action alternative in the RI to document current and future risk, as well as to compare against proposed remedial alternative actions in the FS (EPA/540/G-89/004, https://nepis.epa.gov/Exe/ZyPDF.cgi/10001VGY.PDF?Dockey=10001VGY.PDF). Therefore, the BRA should include these soil waste sites near the 202A Canyon.	Even if DOE demonstrates to Ecology that they have the needed characterization data, confirmatory sampling would at least be needed (even with the representative and analogous approach). This information is needed to evaluate whether the cap is an acceptable remedy, or if there are deep vadose zone issues that the cap will not fully address. The information could help in the design of how far out the effective ET barrier needs to extend if that is part of an alternative.					
60.	Page 3-32, Section 3.9.1.1, Line 23	Typo: "Table 3-78" should be "Table 3-7."	See comment					
61.	Page 3-32, Section 3.9.1.1, Line 30-31	Re rads, specifically include dermal exposure for H-3 in HTO vapor (semi-quantitatively accounted for by increasing the inhalation DCF by 50% in RESRAD) and inhalation exposure to gaseous phase (vapor) rads, e.g., H-3 in HTO and C-14 in CO2. Inhalation of I-129 and Rn-222 should also be evaluated (e.g., RESRAD).	See comment					
62.	Page 3-36, Section 3.9.1.1, Line 1-2	Clarify why a construction worker scenario is evaluated for rads (but not nonrads).	See comment					
63.	Page 3-36, Section 3.9.1.1, Line 13-14	Re rads, specifically include dermal exposure for H-3 in HTO vapor (semi-quantitatively accounted for by increasing the inhalation DCF by 50% in RESRAD) and inhalation exposure to gaseous phase (vapor) rads, e.g., H-3 in HTO and C-14 in CO2. Inhalation of I-129 and Rn-222 should also be evaluated (e.g., RESRAD).	See comment					

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 11 of 21

64.	Page 3-37, Section 3.9.1.1, Line 6-7	Clarify why risk results for tribal scenarios will be presented “for information only” (i.e., it’s unclear what any risk result is--beyond information).	Provide an explanation of what “for information only” means.					
65.	Page 3-37, Section 3.9.1.2, footnote 8	Although EPA/CERCLA allows a cancer risk limit of 1E-4 for either rads or nonrads, MTCA only allows a cancer risk of 1E-5 for nonrads. As such, DOE needs to clearly state that the cancer risk for nonrads is 1E-5 (per MTCA), independent of EPA/CERCLA limits.	Revise footnote 8 (Section 3.9.1.2, pg 3-37) to state “As stated in Section 1.3.2.2, the need for action for nonradionuclides will also be evaluated at a cumulative cancer risk of 1 in 100,000 and a hazard index of 1 for noncarcinogenic effects.” For consistency, text in the first bullet in Section 1.3.2.2 (Lines 29-31, pg 1-8) should be revised as follows (per MTCA): “BRA for direct contact will use the default EPA industrial scenario (multiple pathway) to determine need for action at cumulative cancer risk level of 1 in 10,000 (radionuclides) and 1 in 100,000 (nonradionuclides [per MTCA]) and a hazard index of 1 for noncarcinogenic effects.”					
66.	Page 3-37, Section 3.9.1.1	DOE O 435.1 is referenced with regards to the construction worker radiological risk scenario. Is a DOE O 435.1 WIR evaluation/determination anticipated, also?	See comment.					
67.	Page 3-37, Section 3.9.1.1	This section should also address clean closure or alternative closure requirements and cleanup levels for the applicable TSDs undergoing coordinated closure.	See comment.					
68.	Page 3-38, Section 3.9.1.3, Line 9-10	Please indicate that maximum background has no regulatory significance. The 90th percentile is typically the regulatory statistic employed for background contaminant concentrations.	See comment					
69.	Page 3-40, Section 3.9.1.3, Line 2-5	Clarify the third item in this list of excluded analytes, since “soil physical property measurements” are not analytes.	See comment					
70.	Page 3-40, Section 3.9.1.4, Line 16-18	Explain why grouping of soil samples (in the DQO) from small vs. large waste sites into single vs. multiple exposure areas, respectively, is warranted.	See comment					

Comment Record		Washington State Department of Ecology Nuclear Waste Program				Date: 11/11/20	
						Page 12 of 21	
71.	Page 3-41, Section 3.9.1.5, Line 6	Re Tier 1, note that IRIS retains an old oral RfD (3E-3 mg/kg/d) for uranium, but MTCA/CLARC and other EPA programs (OSRTI, RSL) list an updated oral RfD (2E-4 mg/kg/d), based on higher quality scientific studies (https://semspub.epa.gov/work/HQ/196808.pdf). Please use the revised oral RfD for uranium (2E-4 mg/kg/d).	See comment				
72.	Page 3-41, Section 3.9.1.5, Line 18	Please use an oral CPF for Cr+6 (0.5 [mg/kg/d]-1), a valid EPA Tier 3 tox value (described in a white paper on p 14-15 and p B-8 to B-12 at: https://semspub.epa.gov/work/HQ/163525.pdf). EPA (OSWER/OSRTI/OEM) concurred with EPA Region 2 (9/28/2009) that the NJDEP oral CPF for Cr+6 (0.5 [mg/kg/d]-1) meets all of the criteria in OSWER 9285.7-53. The NJDEP study by Alan Stern (https://www.ncbi.nlm.nih.gov/pubmed/20843510) is based on an NTP (2008) chronic rodent bioassay (https://ntp.niehs.nih.gov/ntp/htdocs/lt_rpts/tr546.pdf). The NJDEP oral CPF is listed in EPA/RSL tables (https://semspub.epa.gov/work/HQ/200043.pdf), as well as by OEHHA/CalEPA (https://oehha.ca.gov/chemicals/chromium-hexavalent)	See comment				
73.	Page 3-43, Section 3.9.2.3, Line 8-10	Re a conditional POC for terrestrial eco receptors at Hanford, Ecology has not accepted a conditional POC but instead supports the standard POC. (https://setac.onlinelibrary.wiley.com/doi/full/10.1002/ieam.4044)	See comment				
74.	Page 3-43, Section 3.9.2.5, Line 23-25	Cite DOE-STD-1153-2002 (July 2002) for USDOE BCGs for rad eco soil screening levels.	See comment				
75.	Page 3-43, Section 3.9.2.6, Line 37-40 and Page 3-44, Line 1-11	DOE needs to clarify and clearly explain what they propose to do using the SMDP process. If uncertainty is involved, then DOE especially needs to explain their process in the WP, not in a reference.	See comment				
76.	Page 3-44, Section 3.9.2.7, Line 20-22	Contrary to text, many Tier 2 PRGs for plants and invertebrates (ECF-HANFORD-11-0158, Rev 1) are NOECs (not LOECs, as stated). Please revise text.	See comment				
77.	Page 3-44, Section 3.9.2.7, Line 28-29	Please add that invertebrates are typically less sensitive to radiation than terrestrial wildlife (e.g., UNSCEAR, 1996). DOE-STD-1153-2002 states, "In the case of invertebrates, indirect responses to radiation-induced changes in vegetation appear more critical than direct effects."	See comment				
78.	Page 3-48, Section 3.9.3.1, Line 10-11	The MTCA regulatory limit for individual chemical carcinogens is 1E-6 risk. Therefore, for SSLs for "Chemicals" (nonrads), reduce the target risk level from 1E-6 to 1E-7 to be consistent with the following two bullets for rads and noncarcinogens (which specify an order of magnitude below the regulatory limit to accommodate multiple constituents and multiple pathways within their constituent group [i.e., chemical carcinogens, rads, noncarcinogens]).	See comment				

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 13 of 21

79.	Page 3-48, Section 3.9.3.1, Line 18	Clarify that MCLs may need to be adjusted downward to total risk=1E-5 or HI=1 (WAC 173-340-720[7][b]).						
80.	Page 3-48, Section 3.9.3.1, Line 34	Add "PNNL-11800" to reference: "Composite Analysis for Low-Level Waste Disposal in the 200 Area Plateau of the Hanford Site."						
81.	Page 3-49, Section 3.9.3.2, Tank Farm Sources	Will the applicable performance assessments and RFI/CMS data be used, in addition to the leak assessments and inventory estimates?	See comment.					
82.	Pages 3-50 and 3-51, Section 3.10	This summary does not include the requirements for RCRA units that will be required to close.	Please include RCRA closure/coordinated closure requirements in the discussion.					
83.	Pages 3-50 and 3-51, Section 3.10	This summary does not include how HLW will be addressed, including in grouted structures.	Please include the path forward for HLW in the discussion.					
84.	Page 4-6, Section 4.2.1 200-CP-1 OU Planned Field Investigations, Table 4-3	The planned investigation for UPR-E-35 includes GPR and/or EM surveys to define source extent – if this was a liquid/viscous substance release how will it be assessed using geophysical techniques vs. soil boring/sampling/testing? How do you determine concentration for risk assessment solely from geophysical data?	Clarify field work activity – specifically how to distinguish between contaminant verification and geologic/stratigraphic variations in subsurface profile.					
85.	Page 4-7, Section 4.2.1 200-CP-1 OU Planned Field Investigations, Table 4-3	The planned investigation for 216-A-5 Crib includes a resistivity survey to define source extent – if this was a liquid/viscous substance release how will it be assessed using geophysical techniques vs. soil boring/sampling/testing? How do you determine concentration for risk assessment solely from geophysical data?	Clarify field work activity – specifically how to distinguish between contaminant verification and geologic/stratigraphic variations in subsurface profile.					
86.	Page 4-7, Table 4-3, Page A-73, Figure A-10, Page A-87, Figure A-24	In Table 4-3, for both 216-A-28 Crib (3 samples) and 216-A-32 the document states, "Collect soil samples <4.6 m (15 ft) bgs at random locations on a systematic grid based on VSP."	Describe the purpose of using VSP to select only 3 randomized grid sampling locations for each site (216-A-28 and 216-A-32). Will statistical evaluation be performed for these sites? If this is the case, describe the defensibility of statistical evaluations for these sites with only 3 sampling locations. Will results be used to reject the null hypothesis?					

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 14 of 21

87.	Page 4-8 and 4-9, Section 4.2.2	For those waste sites requiring additional technical evaluation, this information should be included in the work plan. Currently, the table does not cite sources for the technical evaluation and presumes no field evaluation. The technical evaluation should be completed prior to finalizing the work plan.	See comment.					
88.	Page 4-9, Section 4.2.2	Table 4-5 includes waste sites where no additional field or technical evaluations are planned, including those which USDOE believes will have remediation incidental to the 202A Canyon response action. The table states "Remediation would be addressed by the 202A Canyon response action."	Please clarify how remediation would be addressed by the response action if stabilization with a barrier (landfill closure) is the selected alternative.					
89.	Page 4-11, Table 4-4, 241-A-151	For 241-A-151, there are known releases to soil documented in the WMA A/AX performance assessment. In addition, this is considered HLW. Please clarify whether the information from A/AX will be used in this evaluation.	See comment.					
90.	Page 4-11, Table 4-4, 241-A-302A	The A/AX performance assessment also includes the 241-A-302A catch tank and residual liquid waste inventory in the model. Please use the information in the performance assessment to support sampling.	See comment.					
91.	Page 4-12, Table 4-4	The text states the following: <i>Assess railcard at position 8 to determine if contents may include spent nuclear fuel.</i> How will this assessment occur? Why is this railcar a potential concern for spent nuclear fuel? What documentation is DOE using to support this question?	Provide documentation on why position 8 needs to be assessed for spent nuclear fuel.					
92.	Pages 4-16 and 4-17, Tables 4-7 and 4-8	Please state whether any data gaps exist for HLW.	See comment.					
93.	Page 4-16 to 4-17, Table 4-7	The text states: <i>Determine as-stabilized concentration of transuranic constituents.</i> How can DOE determine this data gap without conducting sampling on the Hot Pipe Trench and other areas within the canyon like the process cells?	Provide an explanation on how DOE can make this determination. This issue can be found throughout this work plan and concerns Ecology.					

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 15 of 21

94.	Page 4-18, Table 4-8	DOE states that there are no uncertainties (i.e. no data gaps) for response evaluation of the "Pipe and Operating Gallery, White Room, Canyon Lobby, and Storage Area, Canyon Deck". Ecology does not agree that there are no data gaps. How can DOE support a remedy implementation without sampling? The White Room includes areas where "White Powder" was found and it was not known what the white powder was until after sampling was conducted. This could very well impact a remedy decision based on what is found in these areas during the planned removal action.	Sampling that is conducted during a removal action should be used as additional data for the remedial action.					
95.	Page 5-4, Section 5.3.2, Line 39	The text states that "An engineering evaluation will be conducted..." When will the engineering evaluation occur in relation to the RI/FS and initiation of a response action.	See comment. Provide clarification within the work plan.					
96.	Page 5-5, Section 5.3.3.1	How does DOE propose to conduct the inventories? Ecology is concerned that the inventories will not accurately represent the amount of High Level Waste and TRU waste (in comparison to sampling) contained in the Tunnels. Upon research into the Hanford Administrative Record, we found project manager meeting minutes that acknowledges that there are glass logs within the PUREX Tunnels (PMM Minutes January 17, 1996). This information is not provided in the list on waste material stored in the Tunnels. Given this information, we believe that a more detailed search of records is needed of the contents within the tunnels. Alternatively, DOE should provide a plan to conduct sampling of waste within the tunnels.	See comment					
97.	Page 5-5, Section 5.3.3.2 Waste Classification	Please describe how HLW will be addressed, or if not applicable, state accordingly.	See comment					
98.	Page 5-5, Section 5.3.4	There are numerous waste streams listed for consideration in the development of remedial alternatives. Is a performance assessment planned for this approach? What is the source of wastes for disposal in 202A vs. those already planned for ERDF and IDF?	See comment.					
99.	Page 5-7, Section 5.10	The text states that alternative closure requirements will be recommended as appropriate based on the results from remedial investigation activities. Many of the units undergoing coordinated closure do not have sampling approaches defined in this work plan.	Please clarify how the investigation approach in the work plan supports clean closure or alternative closure requirements selection.					

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 16 of 21

100	Page A-1, Section A1.2, Line 19-20.	The text states: The OU also includes solid waste storage sites (PUREX Tunnel 1 and PUREX Tunnel 2). This should be reworded to state that the PUREX Storages Tunnels are also Dangerous Waste Management Units regulated under WAC 173-303.	Provide clarification throughout the work plan.					
101	Page A-15, Section A2.1.6, Last para.	The SAP states, "Project files may include the following information:" this is followed by a bulleted list of information.	The information to be included in the project files must consist of definite information to ensure the proper information is collected and maintained. Revise the bulleted list to include information that "must" be retained in the project files and information that is considered optional to be added to the project files.					
102	Page A-20, Table A-7	Please describes in the work plan the interface between MTCA B, MTCA C, clean closure, and landfill closure: Particulary for TSD units and their associated contamination.	Provide clarification throughout the work plan.					
103	Page A-20, Table A-7	Please verify that DOE used the Tank Waste Closure Standards for this work plan.	See comment					
104	Page A-36, Section A2.2.3.2, 1 st Para.	The SAP states, "These QC analyses are required by EPA methods (e.g., those in the SW-846, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods Compendium), and will be run at the frequency specified in the respective references, unless superseded by agreement."	As stated in the SAP QC analyses are required by EPA methodology. Include detailed information on QC analyses that will not be performed per EPA requirements and describe analyses expected to be "superseded by agreement" or describe the situation that validates superseding an EPA method.					
105	Page A-43, Section A3.2.2	Section A3.2.2 describes statistical sampling; however, the MTCA 3 part statistical rule is not included in this section.	Will the MTCA 3 Part Rule be used to determine the site is clean in addition to the null hypothesis?					
106	Page A-54, Section A3.3.1 Subsurface Survey Locations Table A-15	Survey objectives and survey category indicate using resistivity surveys to determine extent of contamination which cannot produce verifiable data of concentrations of contamination without subsequent soil sampling. Given the high variability of soil moisture and near surface soil stratigraphy confirm how resistivity surveys will definitively define extent of contamination (both vertical and horizontal extents)	Clarify field work activity – specifically how to distinguish between contaminant verification and geologic/stratigraphic variations in subsurface profile.					

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 17 of 21

107	Page A-55, Section A3.3.3	Ecology is concerned with groundwater sampling as it relates to the PUREX Tunnels. Will the proposed groundwater sampling locations provide a representative sample for potential contamination from the PUREX Storage Tunnels?	This issue was noted over multiple comments from the PUREX Tunnels Class 3 Permit Modification after the PUREX Tunnel 1 collapsed. DOE needs to provide justification for their proposed sampling locations, given the unknowns associated with the waste contained in the PUREX Tunnels.					
108	Page A-55, Section A3.3.4	<p>Ecology is concerned that sampling is not proposed as it relates to the process cells and other areas within the 202A. Will the groundwater sampling locations be representative of potential contamination under the canyon building?</p> <p>Ecology is also concerned that process knowledge for the waste contained within the process cells, storage gallery, and below the basements of the east and west annex is not sufficient to make a response action decision. We believe that sampling will be needed in order to classify waste for appropriate disposition of waste.</p> <p>Ecology is concerned with what is contained within the canyon. Sampling may need to be performed for waste on the canyon deck, and other areas.</p> <p>If DOE proposes to do sampling under a coordinated RCRA DWMUs closure in conjunction with the CERCLA remedial action, that sampling needs to be proposed in this document also.</p>	See comment					
109	Appendix C	The scoping summaries contained in Appendix C lack consistency. Some sites will require sampling while other sites will not require sampling. The reasoning behind sampling decisions do not appear to be consistent.	Provide a consistent approach for sampling within Appendix C.					
110	Page C-199, Scoping Summary for 216-A-14 French Drain	Relevant Characterization section cites several contamination emission rates in dpm without specifying area. These seem to be spot readings, not a total.	If data is available to report/calculate contamination in dpm/100 cm ² please provide. If not please indicate this was reading and probe area was not known in text/footnote/etc. Provide clarification on all applicable scoping summaries.					
111	Page D-3, Table D-1	Storage Tunnels 1 & 2 missing.	Address Storage Tunnels 1 & 2					

Comment Record**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 18 of 21

112	Page D-7, Section D5	DOE needs to provide a more thorough explanation of removal actions associated with the canyon facility. If sampling is conducted for the removal action, that information needs to be included in the remedial action process.	Include a more thorough explanation of removal actions associated with 200-CP-1.					
113	Page D-9, Table D-4	Storage Tunnels 1 & 2 missing.	Address Storage Tunnels 1 & 2					
114	Page D-13, Table D-5	Storage Tunnels 1 & 2 missing.	Address Storage Tunnels 1 & 2					
115	Page D-9, Table D-4	Why is Q cell listed as being Out of Scope for S&M under the PUREX Complex Removal Action when the Current Conditions section in the scoping summary indicates it is entered for S&M annually?	Revise for consistency internally and with DOE/RL-98-35.					

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 19 of 21

<p>116</p>	<p>Pages D-31 through D-125, Appendix D Scoping Summaries</p>	<p>In several places contamination is listed as dpm without indicating whether this is total for the event or if an area term has been missed/assumed.</p> <p>D-63: "In 1982, a liquid leak from L Cell found an open line in the PR pipe chase and leaked into the PR Corridor resulting in contamination spread of >1 million dpm alpha. Following decontamination, >100,000 dpm alpha remained and was painted over."</p> <p>D-77: Contamination levels were from 20,000 to 45,000 dpm beta. The floor was decontaminated and repainted. Fixed contamination to 40,000 dpm beta was still detectable along the south wall and baseboard of the locker room after decontamination.</p> <p>D-85: "Sections A through C of the gallery had minor blowbacks resulting in 5,000 to 50,000 dpm beta contamination. Contamination was fixed using sealant paint. Sections D through E of the gallery have several beta contaminated overhead electrical wireways, some were internally contaminated in excess of 200,000 dpm beta."</p> <p>D-91: "The rooms are connected to a french drain located at the southeast corner of the Canyon. Contamination to 500,000 dpm beta that occurred as a result of leaking pipe flanges was noted on the floor of the tomb beneath the drain piping."</p> <p>D-92: "Liquid was measured at 80,000 dpm beta."</p> <p>D-95: "Activity levels greater than 7 million dpm alpha were detected in one location on the floor and levels between 200,000 and 1 million dpm were detected throughout the area."</p> <p>D-96: "Activity levels were from 50,000 dpm to 150,000 dpm alpha. The floor area was decontaminated and repainted."</p> <p>D-101: "The cover blocks were contaminated and have beta contamination up to 10,000 dpm."</p> <p>D-103: "In 1970, excess water that was used to flush and decontaminate the 206A Building interior flowed out from under the doorways and across the roadway, contaminating it to 10,000 dpm to 50,000 dpm beta."</p>	<p>Clarify total vs. area measurements.</p>				
------------	---	--	---	--	--	--	--

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 20 of 21

117	Page E-25, Section E4.2.1.4, Final Paragraph	The following statement seems to downplay or ignore the white powder, spreading contamination, accumulation of misc. debris, etc. “Conditions inside the 202A facility have been relatively stable since deactivation with minor exceptions. The only major event since deactivation was the collapse of the Storage Tunnel#1 due to failure of its structural timbers.”	Add clarification as to what are being considered minor exceptions, such as “minor exceptions (e.g., discovery of small quantities of unclassified waste, physical degradation which does not pose a structural risk, localized spread of contamination which does not increase risk of release to the environment, etc.)”					
118	Appendix F, Table F-1	RCW 70.105 is now 70A.300, as Title 70 was re-codified during the last legislative session. Please add “Act” to the end of the title “Hazardous Waste Management”	See comment					
119	Appendix F, Table F-1	RCW 70.95 is now RCW 70A.205, as Title 70 was re-codified during the last legislative session.	See comment					
120	Appendix F, Table F-1	RCW 70.94 is now RCW 70A.15, as Title 70 was re-codified during the last legislative session.	See comment					
121	Appendix F, Table F-1	The description of requirement for WAC 173-303-077 includes reference to WAC 173-303-573. Please break out WAC 173-303-573 as a separate ARAR, or delete this sentence for clarity.	See comment					
122	Appendix F, Table F-1	WAC 173-303-140, Rationale for Use, please clarify that onsite land disposal <u>at ERDF</u> may be needed.	See comment					
123	Appendix F, Table F-1	Please modify the Description of Requirement for WAC 173-303-64620 to state: “Establishes the requirement to perform corrective action as necessary to protect human health and the environment for all releases of dangerous wastes and dangerous constituents at the facility. WAC 173-303-64620(4) requires corrective actions to be, at a minimum, “consistent with” specified provisions of WAC 173-340, “Model Toxics Control Act—Cleanup.”	See comment					
124	Page F-5, Table F-1, OSWER Directives	This OSWER directive and associated documents should not supersede state regulatory limits. Given this OSWER citation for 15 mrem/yr. effective dose limit, it is not clear that the state regulatory limit of 10 mrem/yr. effective dose is the limit.	Add language noting the state regulatory dose 10 mrem/yr. effective dose limit will not be superseded. Or, remove or clarify OWSER reference.	WAC 173-480-040, “Ambient Standard” WAC 173-480-070(2) “General standards for maximum permissible emissions” State regulations are used as ARARs, are more stringent & therefore applicable.				

Comment Record

**Washington State Department of Ecology
Nuclear Waste Program**

Date: 11/11/20

Page 21 of 21

125	Page F-9, Table F-1	Please include WAC 173-303-640 as an ARAR.	Tank closure will be supported by this RI/FS work plan.						
-----	---------------------	--	---	--	--	--	--	--	--