



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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June 21, 2019

19-NWP-098

Mark French, Federal Project Director
Richland Operations Office
United States Department of Energy
PO Box 550, MSIN: H5-20
Richland, Washington 99352

Re: Proposal for Removal Action at the PUREX Complex

Reference: Letter 17-AMRP-0248, dated December 7, 2017, "*Proposal to Perform Hazard Abatement and Demolition Activities at the PUREX Canyon Complex*"

Dear Mark French:

This is in response to the United States Department of Energy (USDOE) proposal for a removal action (Reference) in accordance with Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Action Plan Section 7.2.4. As provided in Section 7.2.4, proposals for removal actions, that are interim response actions, must be approved by the lead regulatory agency prior to the initiation of field work.

The Department of Ecology (Ecology) approves USDOE's proposal for a Non-Time Critical Removal Action (NTCRA). The NTCRA will not preclude possible future remedial alternatives that, if funded and implemented at a minimal yearly amount as described in the proposal, will not impact existing milestones for PUREX or for other work required by the Tri-Party Agreement.

In approving the proposal described in Letter 17-AMRP-0248, under Section 7.2.4, Ecology is not approving USDOE's basis or process for selecting and implementing a removal action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). USDOE is responsible for ensuring it selects and conducts removal actions under CERCLA in compliance with applicable laws and regulations.

Ecology worked with USDOE in the review of the Engineering Evaluation/Cost Analysis for the PUREX Complex, DOE/RL-2016-15, Draft B. The enclosed Review Comment Record confirms that each of our comments are resolved.

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We look forward to continuing to work with you to facilitate the future remedial action of the PUREX operable unit (200-CP-1). If there are any questions regarding this letter, please contact Brigitte Weese, Unit Lead, at brigitte.weese@ecy.wa.gov or (509) 372-7936 or Theresa Howell, Project Manager, at theresa.howell@ecy.wa.gov or (509) 372-7955.

Sincerely,



Theresa Howell
Project Manager
Nuclear Waste Program

bw/so
Enclosure

cc electronic w/enc:

David R. Einan, EPA
Craig Cameron, EPA
Al Farabee, USDOE
Bobbly Long, USDOE
Robert Cathel, CHPRC
Deborah G. Singleton, CHPRC
ERWM Program, YN
Ken Niles, ODOE

Theresa Howell, Ecology
Mark Pakula, Ecology
Stephanie N. Schleif, Ecology
Brigitte Weese, Ecology
Environmental Portal
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Susan Leckband, HAB
Hanford Administrative Record
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Matt Johnson, CTUIR
Jack Bell, NPT
Alyssa Buck, Wanapum

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Document Title(s)/Number(s)

Engineering Evaluation/Cost Analysis for the PUREX Complex
DOE/RL-2016-15 Draft B

Document Manager	Phone	Project Manager	Phone	Facility Site ID	Cleanup Site ID
Brigitte Weese	(509) 372-7936	Theresa Howell	(509) 372-7955	CUG – 25, WA7890008967	

Item No.	Pg. # Sec. # Para./Sent.	Comment or Question	Modification Needed	Basis/Justification	USDOE Response	Ecology/EPA Response	Open/Close	Reviewer Initials
1	General	The proposed new Generator Improvement Rules in the Dangerous Waste Regulations of Chapter WAC 173-303 are likely to be adopted on January 28, 2019 and effective on April 28, 2019. The ARARs referenced in the Engineering Evaluation/Cost Analysis for the PUREX Complex and anticipated Action Memoranda should be evaluated for any changes and aligned with the updated regulation once effective.	See comment		The CERCLA decision document will be based on the regulations in effect at the time of issuance. During periodic review (e.g., 5-year review), the ARARs would be updated if regulatory changes have been made and are appropriate for inclusion in implementing the response action.		Close	
2	General	Make sure that everything is covered that should be in the EE/CA so that the action memorandum can contain all the components. As a policy, EPA R10 is not amenable to plugging in things that were not covered in the EE/CA.	See Comment		Comment noted. Every effort has been made to develop the EE/CA with complete information and to adequately cover the necessary scope. No change to the document.		Close	EPA
3	General	What is the urgency for work inside the 202A canyon building? With a new roof there should be no immediate driver to release contained hazardous substances.	See Comment		The purpose of the removal action is to place the 202A Building and debris in a configuration that is protective of HHE. Without decommissioning, a potential threat of release exists, and without action, adverse threats to HHE eventually could occur. The plan for action is consistent with the joint DOE/EPA Policy on Decommissioning of Department of Energy Facilities Under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980. The plan is also consistent with the TPA Action Plan, Section 8, Appendix J, and Ecology expectations regarding “white powder” within 202A addressing Corrective Action 3 in the Administrative Order Docket Number 15343. No change to the document.		Close	EPA

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4	General	Please make sure that the Administrative Record is up to date so that this EE/CA and other materials supporting the basis for the future removal action are available during the public comment period.	See Comment		Accept, will ensure that cited documents are in the Administrative Record (and available during the public comment period). No change to the document.		Close	EPA
5	Contents Pg. v	The title of Section 4.1.3 should be changed from "Demo Prep" to "Demolition Preparation".	See Comment		Accept, will change section title.		Close	
6	Terms Pg. ix	Add an entry for WIPP to the list of terms.	See Comment		It appears that the term is only used once in the document. It will be spelled out instead.		Close	
7	Section 1 Pg. 1-1 Lines 38-40	"The Washington State Department of Ecology (Ecology) concurs that an NTCRA is warranted to place the 202A Building and debris in a configuration that is protective of HHE." Provide a reference to this agreement.	See Comment		Development of this NTCRA is consistent with the expectation of Milestone M-085-82, which required DOE to submit a proposal to Ecology for approval. The statement is not intended to convey the existence of a formal agreement (other than the TPA) regarding the use of NTCRA authority for the work. It is intended as a statement of fact based on the understanding between DOE, EPA, and Ecology regarding Section 8 facilities and M-085-82. See also 7.2.4 of TPA. <hr/> 3/20/19: Text will be revised to reference the milestone. New response: With the Tri-Parties Agreement to TPA Action Plan Milestone M-085-82, the Washington State Department of Ecology (Ecology) concurs that a CERCLA response action is warranted, including placing the 202A Building and debris in a configuration that is protective of HHE	Revise the referenced statement to clarify that the agreement between Ecology and DOE is in reference to an agreement to milestone M-085-082 that a removal action is warranted for 202A. ----- 4/22/19: The referenced milestone should be M-085-82. Please revise. ----- 5/7/19: Agree. Comment Closed	Close	

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8	Section 1 Introduction, Pg. 1-1, Lines 35-37	The EE/CA says that threats to HHE "could" occur if materials were released. This is a fairly weak justification for the use of a removal action.	See Comment		<p>The approach is consistent with factors for consideration in taking a removal action under 40 CFR 300.415(b)(2), which include potential threats and situations that "may" pose a threat of release. The approach is also consistent with the joint DOE/EPA policy on use of removal action authority by DOE to perform D&D on legacy structures and Ecology's expectations regarding "white powder" within 202A addressing Corrective Action 3 in the Administrative Order Docket Number 15343.</p> <p>No change to the document.</p> <hr/> <p>3/20/19: Craig provided example language for DOE to consider. New language added: The National Contingency Plan (NCP), 40 CFR, Section 300.415(b)(2), establishes factors to be considered in determining the appropriateness of a removal action. Those factors include:</p> <ul style="list-style-type: none"> <i>Hazardous substances or pollutants or contamination in drums, barrels, tanks, or other bulk storage containers that may pose a threat of release. Hazardous substances, including radioactive substances are contained within the PUREX Complex pipes and process vessels. These substances pose a threat of accidental release that may result from equipment failure resulting from a fire or seismic event.</i> <i>Other situations or factors are present that may pose threats to public health or the environment.</i> <p>Hazardous substances are present as fixed contamination within the cells, equipment and additional structures. These substances pose a threat of release as fixed contamination becomes exposed and as structural integrity is compromised, resulting in a potential direct exposure of nearby personnel and the environment, and exposure to the public through airborne radioactive contaminants. Degradation may not be fully addressed by S&M activities and the risk of release of hazardous substances will increase as degradation continues or goes undetected.</p>	<p>40 CFR 300.415(b)(2) refers to situations that may pose a threat of release is specific to hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers. The text in the EE/CA states, "that threats to HHE "could" occur if materials were released". This is not a strong basis for implementation of a NTCRA.</p> <hr/> <p>4/22/19: Agree. This comment will be closed after the revised EE/CA is reviewed by Ecology.</p> <hr/> <p>5/7/19: Agree. Comment Closed</p>	Close	EPA

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9	Section 1 Pg. 1-1 Lines 43-46	It appears that only ERDF is called out as being "onsite" for purposes of the CERCLA action with the 202A complex area. That is good. However, please confirm that the proposed action is consistent with the longstanding precedent of use of the "onsite" concept at Hanford and the Administrative Law Judge ruling from the Multimedia Inspection from a few years ago.	See Comment		Comment noted. No changes to the document. EPA agrees with DOE that ERDF is on site for this removal action.	Facilities that are on-site for purposes of this removal action will need to be identified in the Action Memo. Any facility not specifically listed as on-site will be considered off-site and will need an acceptability determination by the EPA regional office overseeing the receiving TSD facility in accordance with 40 CFR 300.440.	Close	
10	Section 1 Pg. 1-2 Lines 4-6	"This EE/CA was provided to Ecology, the lead regulatory agency for this action, in October 2017 (17-AMRP-0248, "Proposal to Perform Hazard Abatement and Demolition Activities at the PUREX Complex")." Ecology received the EE/CA for PUREX in December of 2017, not October of 2017.	Update this statement to state the EE/CA was provided to Ecology in December.		Accept, will change to December 2017.		Close	
11	Section 1.2 Regulatory Overview, Pg. 1-3, Lines 27-30	Similar to the approach for REDOX removal action, DOE needs to submit to Ecology a proposal for our approval consistent with Section 7.2.4 of the Action Plan.	See Comment		RL letter 17-AMRP-0248 and this EE/CA detailed the proposal.		Close	

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12	Section 1.2 Regulatory Overview, Pg. 1-3, Lines 27-30	<p>This EECA does not satisfy the milestone (Milestone M-085-82) in its entirety. DOE still needs to submit the RAWP to Ecology for our approval as a primary document.</p> <p>M-085-82 states: “Submit to Ecology for approval proposal(s) for expedited response action(s) for one or more of the Tier 1 and Tier 2 facilities in the PUREX Geographic Area listed in HFFACO Appendix J.</p> <p>A Remedial/Removal Action Work Plan including schedule shall be submitted to Ecology as a primary document 180 days after approval of the Action Memorandum or Interim Record of Decision developed for the expedited response action, or an alternative period designated in the Action Memorandum or interim Record of Decision.”</p>	See Comment		<p>RL submitted 17-AMRP-0248 to satisfy Milestone M-085-82. The Tri-Parties have documented completion in River Corridor/Central Plateau Tri-Party Agreement Quarterly Milestone Review Meeting Minutes on March 15, 2018. Accession:0065834H</p> <hr/> <p>3/20/19: Added the following sentence to the end of the paragraph for clarity. “In addition, as stipulated within Milestone M-085-82, DOE will submit a Removal Action Work Plan, including schedule, to Ecology as a primary document 180 days after approval of the Action Memorandum or interim Record of Decision developed for the expedited response action, or an alternative period designated in the Action Memorandum or interim Record of Decision.”</p> <p>4/25/19 – Accept, “for approval” was added as requested.</p> <p>5/8/19 – The agreed to language from 3/20/19 was added.</p>	<p>The mechanism for documenting completion of milestones is not TPA quarterly meetings. The milestone has not yet been met. Only through submission of the RAWP to Ecology for our approval will the milestone be completely met. This needs to be clarified in the EE/CA.</p> <hr/> <p>4/22/19: The quoted milestone in Section 1.2, page 1-3, should be revised to state: “Submit to Ecology for approval proposal(s)....”. In agreement with the clarification statement.</p> <hr/> <p>5/7/19: The agreed to language (contained in the “USDOE Response” dated 3/20/19) was not included in the provided document. Please update.</p> <p>Ecology agrees with the addition of “for approval”.</p>	Close	
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						5/8/19: Agree. Comment Closed		
13	Section 1.2 Pg. 1-3 Lines 4-5	<p>“Portions of the 202A Building are a permitted treatment, storage, and disposal unit under RCRA. A PUREX Part A Form (Hanford Facility RCRA Permit [WA7890008967]) was issued in 1988.”</p> <p>It is unclear what Part A Form these sentences are referring to. The current Hanford Site-Wide Permit Revision 8C only contains a Part A Form for the Storage Tunnel. Are these sentences referring to the Hanford Site-Wide Permit Revision 9?</p>	Clarify what Part A form these sentences are referring to.		The sentence refers to the Part A form that was filed for the PUREX Plant, which should be added to the final status permit in Rev. 9. See attached.		Close	
14	Section 2.1.3 Pg. 2-3 Lines 44-45 Pg. 2-4 Lines 1-3	Will the artificial or natural surface water bodies be affected by this EE/CA?	Provide clarification concerning how surface water bodies will be affected by this EE/CA.		No. Surface water bodies will not be affected by the removal action. The information is provided as background.		Close	

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15	Section 2.1.1 Background, Pg. 2-3, Lines 8-10	The existing Surveillance and Maintenance Plan should eventually be replaced with one that is part of the removal action work plan since the proposed alternative includes S&M under the removal action. The EE/CA should state this. Also, S&M work under the removal action needs to be performed by workers that have been fully HAZWOPR trained.	See Comment		<p>The S&M plan will be referenced in the EE/CA to address continuing S&M activities.</p> <p>For portions of the facility that removal activities will be performed, S&M will stop and CERCLA removal action will commence. The S&M plan will continue for the portions of the facility that are not covered under the removal action.</p> <p>To address HAZWOPER, DOE regulation 10 CFR Part 851 and the CERCLA National Contingency Plan 40 CFR Part 300 both require that 29 CFR 1910.120 standards to be followed during work with hazardous substances.</p> <p>3/20/19: DOE will revise language for clarification.</p> <p>New Response: Additional text, line 10, last sentence: S&M activities will continue as part of this removal action and details will be included in the associated removal action work plan.</p>	<p>The Purpose and Scope or Regulatory Overview sections should be updated to include the coordination between this proposed removal action and S&M activities for PUREX Plant.</p> <p>-----</p> <p>4/22/19: Agree. This comment will be closed after the revised EE/CA is reviewed by Ecology.</p> <p>-----</p> <p>5/7/19: Agree. Comment Closed</p>	Close	EPA
16	Section 2.2.1.2 Out-of-Scope Areas, Pg. 2-7, Lines 23-26	The efforts to obtain public input on the EE/CA should help clarify that this effort is not connected with the stabilization of the PUREX tunnels.	See Comment		<p>Comment noted. Section 2.2.1.2 identifies the PUREX tunnels as being out-of-scope for this removal action. No change to the EE/CA.</p>		Close	EPA
17	Section 2.2.2.2 Pipe and Operating Gallery Level, Pg. 2-14, Lines 17-25	The dangerous waste identified in the Pipe and Operating Gallery (Tour Path 3) and White Room (Tour Path 4) during the 2015, 2016, and 2017 CHPRC Annual Surveillances is not addressed in Section 2.2.2.2.	<p>Provide a brief summary of the white powder in the Pipe and Operating Gallery and White Room and corresponding sampling results.</p> <p><u>Pipe and Operating Gallery</u></p> <ul style="list-style-type: none"> • WT02, Washington State Criteria Toxic (Sodium Bicarbonate) <p><u>White Room</u></p> <ul style="list-style-type: none"> • D001, Characteristic Ignitability (Nitrates) • D006, Characteristic Toxicity (Cadmium) • D007, Characteristic Toxicity (Chromium) • D008, Characteristic Toxicity (Lead) 		<p>The goal of this section is to provide general descriptions of the various areas on the Pipe and Operating Gallery Level. Section 2.4 addresses remaining contamination. Table 2-3 will make reference to white powder.</p> <p>Waste codes are too detailed to add for the EE/CA. See comment response #23.</p> <p>No change to the document.</p>		Close	

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18	Section 2.2.2.6 202A West Annex, Pg. 2-16, Lines 13-22	The dangerous waste identified in the Aqueous Makeup Unit (Tour Path 7) during the 2015, 2016, and 2017 CHPRC Annual Surveillances is not addressed in Section 2.2.2.6.	Provide a brief summary of the white powder in the Aqueous Makeup Unit and corresponding sampling results. <u>West Annex (Aqueous Makeup Unit)</u> • D008, Characteristic Toxicity (Lead)		The goal of this section is to provide general descriptions of the various areas in the 202A West Annex. Section 2.4 addresses remaining contamination. No change to the document		Close	
19	Section 2.4 Source, Nature, and Extent of Contamination, Pg. 2-17, Lines 4-5	In Section 2.4, the term “applicable chemicals” is used. What is meant by this term?	See Comment		Accept, will edit sentence as follows: “Sections 2.4.1 and 2.4.2 discuss the remaining radiological inventories and chemicals at PUREX.”		Close	EPA
20	Section 2.4 Source, Nature, and Extent of Contamination, Pg. 2-17, Lines 9-11	Section 2.4 mentions structural degradation. Is structural stability information going to be gained through the SAP? If so, please describe the commitment.	See Comment		Structural degradation (based on the age of the facility and water infiltration) is one of the drivers for this NTCRA. The SAP will sample for chemical and radiological constituents not structural stability information. No change to the EE/CA.		Close	EPA
21	Section 2.4 Source, Nature, and Extent of Contamination, Pg. 2-17	The dangerous waste identified on the floor and on equipment is not addressed in Section 2.4.	Address dangerous waste and hazardous substances already known to exist in Section 2.4 Source, Nature, and Extent of Contamination.		The focused action memorandum for the PUREX white powder will include this specificity while the EE/CA purposely uses a broader approach. No change to the EE/CA.		Close	

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22	Section 2.4.1 Chemical Hazards, Pg. 2-17, Lines 24-35	D001, Characteristic Ignitability (Nitrates), D007, Characteristic Toxicity (Chromium), and WT02, Washington State Criteria Toxic (Sodium Bicarbonate) are not addressed in Section 2.4.1.	Address dangerous waste (Nitrates, chromium, sodium bicarbonate) and hazardous substances already known to exist in Section 2.4.1 Chemical Hazards and Table 2-1 Nonradioactive Material Inventory.		Partially accept, will add nitrates, chromium, and sodium bicarbonate to the bullet list of chemical hazards. Greater detail will be provided in the focused action memorandum. See previous comment. <hr/> 4/30/19: New Response: Accept, these chemicals will be added to Table 2-1 with footnote that states that quantities are unknown.	Table 2-1, lists the Nonradioactive Material Inventory; however nitrates, chromium and sodium bicarbonate are not included with their associated quantity. Please clarify. <hr/> 4/22/19: Agree. This comment will be closed after the revised EE/CA is reviewed by Ecology. <hr/> 5/7/19: Comment Closed	Close	
23	Table 2-3 Pg. 2-19	The dangerous waste identified in the Pipe and Operating Gallery, White Room, and Aqueous Makeup Unit during the 2015, 2016, and 2017 CHPRC Annual Surveillances is not completely addressed in Table 2-3.	Provide a brief summary of the white powder in the Pipe and Operating Gallery, White Room, and Aqueous Makeup Unit and corresponding sampling results. <u>Pipe and Operating Gallery</u> • WT02, Washington State Criteria Toxic (Sodium Bicarbonate) <u>White Room</u> • D001, Characteristic Ignitability (Nitrates) • D006, Characteristic Toxicity (Cadmium) • D007, Characteristic Toxicity (Chromium) • D008, Characteristic Toxicity (Lead) <u>West Annex (Aqueous Makeup Unit)</u> • D008, Characteristic Toxicity (Lead)		Partially accept, will add general information on the white powder to Table 2-3, (including 2017 annual surveillance results) but waste codes are too detailed for inclusion in the EE/CA.		Close	

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24	Section 2.5 Risk Evaluation, Pg. 2-19	There should be discussion of the quantitative risks associated with exposure to some of the higher concentrated materials in the facilities. This would be fairly easy to assess for some examples to shore up the need for the action. Is there a criticality risk anywhere in the facility and will the removal action address those areas?	See Comment		<p>Not applicable. Criticality risk is related to nuclear safety and is addressed by DOE under authority of the Atomic Energy Act and 10 CFR Part 830.</p> <p>No change to the document.</p> <p>3/20/19: Craig provided DOE/CHPRC example language to address this comment. New Response See Response to Comment No. 8.</p>	<p>This comment was made to ensure that this safety is addressed. The reference to criticality was only given as one example of risks associated with exposure. The response does not address the rest of the comment on the quantitative risks associated with exposure to some of the higher concentrated materials in the facilities.</p> <p>----- 4/22/19: Agree. This comment will be closed after the revised EE/CA is reviewed by Ecology.</p> <p>----- 5/7/19: Agree. Comment Closed.</p>	Close	EPA

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25	Section 3 Pg. 3-1	The general schedule for removal activities, including both the start and completion time for the non-time-critical removal action, should be part of the EE/CA. It is understood that the level of activity is contingent on funding coming available due to efficiencies on the Hanford Site.	Provide a general schedule for the removal activities.	Reference: Guidance On Conducting Non-Time-Critical Removal Actions Under CERCLA EPA/540-R-93-057, Publication 9360.0-32, PB93-963402, August 1993 Pg. 32, Pg 44 of the document	There are no requirements in 40 CFR 300.420 to include general schedules for removal actions in the EE/CA. No change to the document. <hr/> 3/20/19: DOE will provide reasoning on why this was set up in this particular type of EE/CA. New Response: A general schedule is undefined at this time. DOE will attempt to provide funding of \$1M-\$2M per year through efficiencies. Assuming that a ROD would be available in the 2033 timeframe the maximum expenditure would be in the range of \$15 million to \$30 million over a 15 year time period. 4/30/19 No change to the document.	This comment is based on information found in the guidance. The purpose of the guidance is to provide information on the procedures and activities the EPA uses in conducting non-time-critical removal actions under the CERCLA and the NCP. OSCs and RPMs should use this guidance to ensure that non-time-critical removal actions are conducted in accordance with applicable laws, regulations, and EPA policy. ----- 4/22/19: Agree. This comment will be closed after the revised EE/CA is reviewed by Ecology. ----- 5/7/19: Comment Closed	Close	

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26	Section 4 Identification of Removal Action Alternatives, Pg. 4-2, Lines 10-12	Is any TRU waste going to be removed and sent to WIPP from this project?	See Comment		If such waste is generated, yes. No change to the document.		Close	EPA
27	Section 4.1.4 Pg. 4-3	This section under Demolition needs to contain a statement that below grade structures will become a waste site in WIDS and will be considered during the DQO process for the future RI.	See Comment		Partially accept. Language will be added indicating that any potentially contaminated, remaining soil in the footprint of demolition activities will be identified by DOE for placement in the WIDS for evaluation as a new waste site under the TPA, with concurrence by Ecology and EPA. The DQO process for RI is separate from this removal action.		Close	
28	Section 4.0, Pg. 4-3	DOE has stated they would like to use this EE/CA to address removal of the white powder documented in a previous Ecology inspection. The scope of the alternatives listed in Section 4.0 needs to be expanded to include the removal of white powder in the canyon.	See Comment.		Accept. Language will be added citing the white powder as an example of work that will be done.		Close	

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29	Section 5.3 Pg. 5-6	Cost estimates are not split up into indirect/direct capital costs and operational/maintenance costs.	Provide a break down for the cost of each alternative. Costs should be broken down into indirect and direct capital costs, and also operation and maintenance costs.	Reference: Guidance On Conducting Non-Time-Critical Removal Actions Under CERCLA EPA/540-R-93-057, Publication 9360.0-32, PB93-963402, August 1993 Pg. 43	There is no regulatory driver to break down costs. Reporting of just total costs is consistent with previous EE/CAs: REDOX (DOE/RL-2016-16), 200 East Area Tier 2 Buildings (DOE/RL-2010-54), and Hanford Site General Decommissioning (DOE/RL-2010-14). No change to EE/CA. No Change to the document. 3/20/19: DOE will provide reasoning regarding why the costs were broken down the way it was. New response: The EE/CA cost estimate does not break out direct/indirect capital costs and operations and maintenance costs. Due to the work scope being long term, the estimate reflects a life-cycle duration and cannot be broken out in the requested discrete categories. Costs are estimated as S&M costs, over the expected life-cycle of the removal action and the discrete tasks described for each alternative is costed on its life-cycle duration. 4/30/19 No change to the document.	This comment is based on information found in the guidance. The purpose of the guidance is to provide information on the procedures and activities the EPA uses in conducting non-time-critical removal actions under the CERCLA and the NCP. OSCs and RPMs should use this guidance to ensure that non-time-critical removal actions are conducted in accordance with applicable laws, regulations, and EPA policy. ----- 4/22/19: Agree. This comment will be closed after the revised EE/CA is reviewed by Ecology. ----- 5/7/19: Comment Closed	Close	

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Date: January 24, 2019

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30	Table 6-1 Pg. 6-3	Clarify: 1. RAO means Removal Action Objective 2. Demo Prep means Demolition Preparation 3. PUREX: Plutonium Uranium Extraction	See Comment		Accept, will add the listed acronyms to bottom of Table 6-1.		Close	

31	Section 7 Recommended Alternative, Pg. 7-1, Lines 14-16	<p>The statement that alternative 4 shall commence upon issuance of the Action Memorandum, anticipated for 2019, is incorrect for the following reasons:</p> <ul style="list-style-type: none"> • It does not follow the Statement of Basis process in the AOP to transition from AOP requirements to CERCLA • The RAWP is the primary document and must be approved prior to commencing work. 	1) Follow the process laid out in the Statement of Basis on Pg. 14 of the AOP to transition from AOP requirements to CERCLA ARARs. The Notice of Transition from CAA to CERCLA shall be submitted after the RAWP is approved.		<p>Text will added to the last paragraph in Section 1.0, Introduction. We provided a brief explanation to provide to the public the basis on what is going on:</p> <p>“Removal action taken pursuant to this NTCRA will be conducted in compliance with DOE et al., 2012, <i>Hanford Federal Facility Agreement and Consent Order Hanford Public Involvement Plan</i>, and public participation requirements established in the NCP (40 CFR 300.415(n), “Community Relations in Removal Actions”). This EE/CA will undergo a 30-day public comment period. After the public comment period, a written response to significant comments will be provided in accordance with 40 CFR 300.820(a), “Administrative Record File for a Removal Action.” The 30-day public comment period will also constitute the public period for removal of the PUREX, 291-A-1, stack from the Air Operating Permit. After considering the comments received from the public, DOE will confer with Ecology in the issuance of an action memorandum (AM). The AM will identify the selected alternative, which may be the alternative recommended here or one of the other alternatives discussed in this EE/CA.</p> <p>As a part of transitioning the Hanford Site facilities and emission units from an Air Operating permit basis, the Hanford Site Air Operating Permit (#00-05-006) includes an agreement for transition, <i>contained in the Standard Terms and General Conditions Statement of Basis</i>. This provides an agreed upon process for removing facilities from the Hanford Title V Air Operating Permit <i>upon the start of CERCLA work activities</i>. After public comment of the EE/CA, a signed Action Memorandum Removal Action Work Plan, Air Monitoring Plan, and Sampling Analysis Plan addressing all ARARs, are approved and issued prior to start of CERCLA work activities. A Notice of</p>	Ecology and EPA would like to schedule a meeting with USDOE to discuss this with our management. The response from USDOE is not consistent with the approach stated in the AOP and understood by the regulatory agencies. USDOE will not be able to transition out from under the requirements of the AOP until there is an Air Monitoring Plan (AMP) covering the air emissions under the CERCLA removal action. The AMP is typically developed at the same time as the Removal Action Work Plan. This is consistent with the process called out in the Statement of Basis in the AOP and as agreed to with the Tri-Parties several years ago. In addition, Ecology as the AOP permitting authority has to provide proper	Close
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Transition the emission unit(s) will be provided to the regulatory agencies for review. The NOT will list an effective date (not the approval date) which will coincide with the onset of CERCLA field activities covered under this removal action. USDOE is no longer required to certify to the AOP requirements after the onset of the field activities covered under the removal action. The necessary air emission controls will be described in the removal action work plan and associated air monitoring plan.”

notification on the AOP Permit Register and in the local newspaper of the 30 day public comment period on the EE/CA as stated in Section 4.0 within the Statement of Basis in the AOP. There are further steps called out in this Section of the AOP which require coordination between EPA/Ecology/D OH/ and DOE.

4/22/19:
Please revise to state, “A Notice of Transition (NOT) for the emission unit(s) will be provided to the regulatory agencies for review. The NOT will list an effective date (not the approval date) which will coincide with the onset of the CERCLA field activities covered under this removal action. USDOE is no longer required to certify to the AOP requirements

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						after the onset of the field activities covered under the removal action. The necessary air emission controls will be described in the removal action work plan and associated air monitoring plan.” Ecology will then remove this emission unit from the AOP. ----- 5/7/19: Agree. Comment Closed		
32	Section 7 Recommended Alternative, Pg. 7-1, Line 15	The schedule for the transition from S&M to the CERCLA removal action approval and start of actual demolition is vague with dates ranging from 2019-2032.	1) Follow the process laid out in the Statement of Basis on pg. 14 of the AOP to transition from AOP requirements to CERCLA. 2) Clarify the anticipated approval & start times See also RCR # 13.	The process for removing a facility from the Radioactive Air Emissions License FF-01 and the Hanford Site Air Operating Permit (AOP) has already been established	See response to previous comment regarding the AOP. The information in the Statement of Basis for the AOP is for information purposes and assists in understanding how WDOH will proceed in removal of the unit from the AOP. It has no legal bearing on the ability of DOE to begin response action work after a decision is made. The work is anticipated to begin in 2019 as stated in Section 7. The “schedule” is not intended to imply that the start of actual demolition could be as late as 2032, but instead states that the removal action will be performed based on emergent facility conditions, funding availability, craft/engineering resource availability, and overall interactive site priorities. It is assumed the reference to #13 in the “Modification Needed” column was intended as a reference to #31. No change to the document.	See Response to Comment 31. ----- 5/7/19: Agree to response to comment 31. Comment Closed	Close	

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33	Appendix B1 Pg. B-1 Line 18	Include the following statement to the beginning of this paragraph: "Following public review and comment on the EE/CA, DOE will confer with Washington State Department of Ecology in the issuance of an action memorandum that will identify the selected alternative for the removal action."	See Comment		Partial acceptance. DOE does intend to submit the associated PUREX Action Memorandum and PUREX Removal Action Work Plan to Ecology as a primary documents. However, DOE does not believe it is necessary to add the proposed language in the EE/CA. No change to the document.		Close	
34	Section B1.3, Table B-2	Add the following Regulatory Citation and corresponding information: <u>Regulatory Citation:</u> WAC 173-400-035(3) <u>ARAR Category:</u> ARAR <u>Description of Regulatory Requirement:</u> This regulation requires the use of specific fuel types in nonroad engines <u>Rationale for Consideration:</u> The use of nonroad engines fuel types to ensure that the nonroad engines do not cause or contribute to a violation of National Ambient Air Quality Standards.	See Comment		Fuel types have been identified as ARAR. The WAC 173-400-113 ARAR requires the use of BACT, which includes ultra-low sulfur diesel and bio-diesel as a control technology. The Hanford site only receives ultra-low sulfur diesel and bio-diesel. No change to the document.		Close	
35	Section B1.2.1 Radiological Air Emissions, Pg. B-4, Lines 7-10	Please keep in mind that the site-wide air operating permit coverage does not cease once the decision document (action memorandum) is in place but rather once a CERCLA decision document is in place and the facilities are actively being addressed by the removal action. At that time the provisions of the air monitoring plan (should be part of the removal action work plan) kick in and the facility ceases to be covered under the site-wide air operating permit.	See Comment		Agreed. No changes to the document.	See Response to Comment 31. ----- 5/7/19: Agree to response to comment 31. Comment Closed	Close	EPA
36	Section B1.3, Pg. B-14, Table B-2	No specific subsection of WAC 173-400-040 should be listed (the document calls out (3) and (8)). WAC 173-400-040 (1) states "All sources and emissions units are required to meet the emission standards of this chapter."	Please change the first column to: <i>WAC 173-400, "General Regulations for Air Pollution"</i> <i>Specific subsection:</i> <i>WAC 173-400-040, "General Standards for Maximum Emission"</i>		The emission standards have been identified. The WAC 173-400-113 requires the use of BACT, which addresses the substantive requirements of WAC 173-400-040 with the exception of fallout and concealment/masking requirements. No changes to the document.		Close	
37	Section B1.3, Table B-1	Please add 36 CFR 65 and 36 CFR 60 as ARARs for EO 11593, Protection and Enhancement of the Cultural Environment.	See Comment		These regulations are not ARAR to the scope of the removal action. No changes to the document.		Close	

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38	Section B1.3, Table B-1	Please add DOE/EIS-0222-F and DOE/EIS-0222-SA-01 as TBCs. These establish future land use projections for the Hanford Site, including the central plateau.	See comment		The information in these documents is outside the scope of this removal action. No changes to the document.		Close	
39	Section B1.3, Pg. B-6, Table B-1	40 CFR 61.140 and 40 CFR 61.145 are action-specific, rather than chemical-specific ARARs.	Please revise in column "Rationale for Consideration."		The 40 CFR 61 regulations for asbestos are identified in EPA's Compliance With Other Laws Manual as chemical-specific ARARs. See Volume II, Exhibit 1-1, page 1-3. The type of ARAR identified is consistent with EPA guidance. No change to the document.		Close	
40	Section B1.3, Pg. B-6, Table B-1	40 CFR 61.150 is an action-specific, rather than chemical-specific ARAR.	Please revise in column "Rationale for Consideration."		The 40 CFR 61 regulations for asbestos are identified in EPA's Compliance With Other Laws Manual as chemical-specific ARARs. See Volume II, Exhibit 1-1, page 1-3. The type of ARAR identified is consistent with EPA guidance. No change to the document.		Close	
41	Section B1.3, Pg. B-7, Table B-1	16 USC 469a-1 through 469a-2(d) are location-specific, rather than action-specific ARARs.	Please revise in column "Rationale for Consideration."		This law pertains to the preservation of data and does not require protection of the actual historical sites. It should be considered an action-specific ARAR. No change to the document.		Close	
42	Section B1.3, Pg. B-7, Table B-1	Please add mitigation measures to the description of regulatory requirement for the <i>Endangered Species Act of 1973</i> ARAR.	Please add the following to "Description of Regulatory Requirement": <i>Mitigation measures must be applied to actions that occur within critical habitats or surrounding buffer zones of listed species, in order to protect the resource.</i>		The PUREX complex is not within the critical habitat of any identified endangered or threatened species. No change to the document.		Close	
43	Section B1.3, Pg. B-8, Table B-1	Please add 40 CFR 761.60(a) for disposal of PCB liquids.	See comment		Addition of this regulation is unnecessary. Adding this regulation would duplicate information already provided in the ARAR table through citation of 40 CFR 761.50(b)(1), which references 40 CFR 761.60(a). No change to the document.		Close	

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44	Section B1.3, Pg. B-11, Table B-2	Please add WAC 173-160-460 "What is the Decommissioning Process for Resource Protection Wells?" as an action-specific ARAR.	See comment		Although there is a potential to encounter UIC wells, we do not anticipate closing resource protection wells or geotechnical borings. WAC 173-218-120(3)(b) is appropriate as an ARAR for decommissioning of UIC wells, but WAC 173-160-460 is not. No change to the document.		Close	
45	Section B1.3, Pg. B-11 and B-12, Table B-2	The Header "Regulations Pursuant to the Solid Waste management Recovery and Recycling Act of 1969..." is misplaced. The header should be referencing the dangerous waste regulations: RCW 70.105; WAC 173-303. (Note: page 11 and 12 both have the wrong headers)	See comment		Accept, will change header as suggested.		Close	
46	Section B1.3, Pg. B-13, Table B-2	Please add WAC 173-303-200 as an action-specific ARAR for dangerous waste accumulation onsite.	See comment		Adding this regulation would be duplicative and is unnecessary. Because permits are not required for dangerous waste management under CERCLA, the administrative provisions in -200 are not applicable and referencing this regulation generically could be misleading. The standards for management in tanks or containers are adequately captured by referencing WAC 173-303-170(3). No change to the document.		Close	
47	Section B1.3, Pg. B-13, Table B-2	Please add WAC 173-350-025, WAC 173-350-040, and WAC 173-350-900 as action-specific ARARs.	See comment		These regulations are not ARAR to the action. WAC 173-350-025 is not applicable because solid wastes generated will remain under CERCLA authority and would not qualify for disposal as ordinary solid waste at a solid waste facility. WAC 173-350-040 and WAC 173-350-900 are not applicable because neither the PUREX Complex nor the ERDF are a "solid waste facility." No change to the document.		Close	

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48	Section B1.3, Pg. B-14, Table B-2	Please add WAC 173-340-720 and WAC 173-340-730 as chemical-specific ARARs.	See comment		<p>Groundwater and surface water cleanup standards are not within the scope of this removal action and are therefore not ARAR. No change to the document.</p> <p>3/20/19: DOE will add a statement that groundwater and surface water will not be impacted. New response: The following sentence will be added at the end of line 12, page B-1: "There are no impacts to groundwater or surface water as a result of this removal action." 5/8/19 – The requested change was made.</p>	<p>Please note in the text of Section 7 or in Appendix B that groundwater and surface water will not be impacted by the removal action; therefore, the corresponding ARARs for protection of groundwater and surface water are not included.</p> <p>4/22/19: Agree. This comment will be closed after the revised EE/CA is reviewed by Ecology.</p> <p>5/7/19: The requested change was not made. Comment open.</p> <p>5/8/19: Agree. Comment Closed</p>	Close	
49	Section B1.3, Pg. B-14, Table B-2	Please add WAC 173-400-075 as an action-specific ARAR.	See comment		<p>WAC-173-400-075 duplicates the 40 CFR 61 NESHAP requirements. Radionuclides (subpart H) and Asbestos (Subpart M) are the only constituents that need to be addressed under NESHAP. The WAC 246-247 ARAR addresses radionuclides. The 40 CFR 61.140, 145 & 150 ARAR address asbestos. No change to the document.</p>		Close	

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50	Section B1.3, Pg. B-15, Table B-2	Please add WAC 173-460-080 "First Tier Review" as an action-specific ARAR.	See comment		The Tier Review process is administrative for permitting applications and is therefore not an ARAR. No change to the document.		Close	
51	Section B1.3, Pg. B-16, Table B-2	WAC 246-247 falls under the authority of chapter 70.98 RCW, Nuclear Energy and Radiation, rather than RCW 70.94. (Note: comment for pages B-15 and B-16 [last line on B-15 and first on B-16])	Please update Header.		Accept, will revise to correct.		Close	